

TECHNICAL DATA SHEET



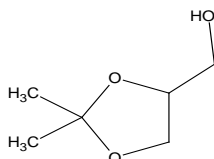
Augeo Clean Multi

May 2014

REFERENCE: UQS-2-SOL-FP-099 - Version: 05

IDENTIFICATION: CAS 100-79-8

SYNONYM: Di-Isopropylidene Glycerol; 2,2-Dimethyl-4-Hydroxymethyl-1,3-Dioxolane; 2,2-Dimethyl-1,3-Dioxolane-4-Methanol.

STRUCTURAL FORMULA:

MOLECULAR FORMULA: C₆H₁₂O₃
MOLECULAR WEIGHT: 132.16

SPECIFICATIONS:

DETERMINATION	LIMITS	RHODIA METHOD
APPEARANCE	Clear Liquid	UQS-3-DCA-NA-005
*PURITY (% m/m); Min.	99.50	UQS-3-DCA-NA-376
DENSITY 20/20 °C	1.067 - 1.071	UQS-3-DCA-NA-008
COLOR (Pt-Co); Max.	10.0	UQS-3-DCA-NA-006
ACIDITY AS ACETIC ACID (% m/m); Max.	0.02	UQS-3-DCA-NA-156
WATER (% m/m); Max.	0.10	UQS-3-DCA-NA-007

*Purity: Di-Isopropylidene Glycerol + Isomer (2,2-Dimethyl-5-Hydroxy-1,3-Dioxane; typical content: 1.4%)

GENERAL CHARACTERISTICS:

The **Augeo Clean Multi** is a colorless and clear liquid, non-corrosive, low volatility and low toxicity, slight odor. It is miscible in common organic solvents and water.

MAIN APPLICATIONS:

The **Augeo Clean Multi** is a solvent from a renewable source developed for surface care segment into homecare and industrial & institutional markets, the main applications are multipurpose cleaners, waxes, polishes and polish removers, degreasers, glass cleaners and specialty cleaners. Also applied as a diluent and carrier for fragrance.

The **Augeo Clean Multi** is a Ketal and presents good stability in neutral and alkaline pH, in aqueous and non-aqueous solutions at any temperature.

However, it cannot be manipulated in acid step of process in presence of water or in acidic aqueous formulations, because it can degrade under these conditions.

RHODIA	COMPANY	REFERENCE	VERSION
	COATIS	UQS-2-SOL-FP-099	05

PHYSICAL PROPERTIES:

• Boiling range, 760 mm Hg (°C)	183 - 191
• Liquid density, 20/20 °C	1.069
• Solubility, 20 °C	product in water.....	Complete
	water in product.....	Complete
• Evaporation rate (n-butyl acetate = 100)	2.7
• Flash point (°C)	closed cup.....	91.0
	open cup.....	100.0
• Viscosity, 20 °C (cPs)	11
• MIR ⁽¹⁾ (Maximum Incremental Reactivity)	g O ₃ /g VOC	2.01

⁽¹⁾ Potential formation of ozone catalyzed by sunlight

PACKAGING:

CODE

Product in bulk	121480
Product in drums (210Kg)	121504

SHELF LIFE:

The expiration date is 12 months from the manufacture date, defined through laboratories studies. External factors may influence in the date described. Rhodia is not responsible for the observance of the necessary conditions to the maintenance of the expiration date after the delivery of the product to the acquirer.

It's recommended the full compliance with the storage conditions indicated in the "Safety Data Sheet".

COMMERCIALIZATION:

The **Augeo Clean Multi** is directly commercialized by **Rhodia** to orders of 210 Kg drums and bulk.

TRANSPORT, STORAGE AND SAFETY INSTRUCTIONS:

Please consult our "Safety Data Sheet".

The information contained in this document is supplied in good faith. However it is purely given as an indication. It shall not be considered in any way as a formal commitment or warranty on our part, notably in respect of the possible infringement of any rights of third parties which may be caused through use of our product.

TECHNICAL ASSISTANCE:

The technical staff of **RHODIA** is at your disposal to give more information about this product.

This specialized staff works with a technically advanced laboratory for the development of solvent systems.

PHONE.: (55-11) 3741 - 8796

www.rhodia.com.br

All the information contained in this document is supplied in good faith and is based in our current knowledge. They are only indicative and do not in any way, configure responsibility for infractions or damages to third persons due to the use of our products. We guarantee that our products fully comply with our commercial specifications

This information does not have to be used as a replacement to the necessary previous tests in order to assure that the product is adjusted for the intended application. The users are responsible for assuring the fulfillment of the local laws and for the certificates and authorizations required. We request the users to verify if they have the latest available version of this document and we are pleased to deliver additional information whenever needed.

RHODIA	COMPANY	REFERENCE	VERSION
	COATIS	UQS-2-SOL-FP-099	05

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

- | | |
|-------------------------------|-----------------------|
| - Trade name | AUGEO CLEAN MULTI |
| - CAS-No. | 100-79-8 |
| - REACH : Registration number | 01-2120066005-66-0000 |

1.2 Relevant identified uses of the substance or mixture and uses advised against**Uses of the Substance/Mixture**

- Cleaning agent
- Waxes
- Stain removers and waxes removers
- Glass cleaner
- diluent and vehicle for fragrances

1.3 Details of the supplier of the safety data sheet**Company**

RHODIA Opérations
40 Rue de la Haie Coq
93306 Aubervilliers Cedex - France
Tel : +33 (0)1.53.56.50.00

E-mail address

manager.sds@solvay.com

1.4 Emergency telephone number

+44(0)1235 239 670 [CareChem 24]

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification (Regulation (EC) No 1272/2008)**

Eye irritation, Category 2

H319: Causes serious eye irritation.

2.2 Label elements**Regulation (EC) No 1272/2008****Hazardous products which must be listed on the label**

- CAS-No. 100-79-8 2,2-dimethyl-1,3-dioxolan-4-ylmethanol

Pictogram**Signal word**

- Warning

Hazard statements

- H319 Causes serious eye irritation.

Precautionary statementsPrevention

- P264 Wash skin thoroughly after handling.
- P280 Wear eye protection/ face protection.

Response

- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 If eye irritation persists: Get medical advice/ attention.

2.3 Other hazards which do not result in classification**Results of PBT and vPvB assessment**

- This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
- This substance is not considered to be very persistent and very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients**3.1 Substance****Information on Components and Impurities**

Chemical name	Identification number	Classification Regulation (EC) No 1272/2008	Concentration [%]
2,2-dimethyl-1,3-dioxolan-4-ylmethanol	CAS-No. : 100-79-8 EINECS-No. : 202-888-7	Eye irritation, Category 2 ; H319 Registration number: 01-2120066005-66-xxxx	≥ 99 - ≤ 100
	self classification		

For the full text of the H-Statements mentioned in this Section, see Section 16.

3.2 Mixture

- Not applicable, this product is a substance.

SECTION 4: First aid measures**4.1 Description of first aid measures****General advice**

- Show this safety data sheet to the doctor in attendance.
- First aider needs to protect himself.
- Place affected clothing in a sealed bag for subsequent decontamination.

In case of inhalation

- Move to fresh air.
- Keep at rest.
- Consult a physician if necessary.

In case of skin contact

- Take off contaminated clothing and shoes immediately.
- Wash off with soap and plenty of water.
- If skin irritation occurs, seek medical advice/attention.

In case of eye contact

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- If eye irritation persists, consult a physician

In case of ingestion

- Do NOT induce vomiting.
- Rinse mouth with water.
- Do not give anything to drink.
- Consult a physician if necessary.

4.2 Most important symptoms and effects, both acute and delayed

- no data available

4.3 Indication of any immediate medical attention and special treatment needed**Notes to physician**

- Treat symptomatically.
- There is no specific antidote available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

- Foam
- Dry powder
- Water mist
- Carbon dioxide (CO₂)
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

- High volume water jet

5.2 Special hazards arising from the substance or mixture

- Combustible liquid.
- Heating increases the inner pressure of the bottle, risk of explosion.

5.3 Advice for firefighters**Special protective equipment for firefighters**

- Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
- Wear self-contained breathing apparatus for firefighting if necessary.

Further information

- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Cool containers/tanks with water spray.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

- Keep away from flames and sparks.
- Store away from heat.
- Evacuate personnel to safe areas.
- Avoid contact with the skin and the eyes.
- Use personal protective equipment.

- For personal protection see section 8.
- Stop the leak. Turn leaking containers leak-side up to prevent the escape of liquid.
- Remove all incompatible materials as quickly as possible
- Mark the contaminated area with signs and prevent access to unauthorized personnel.

6.2 Environmental precautions

- Dam up.
- Prevent product from entering sewage system.
- Try to prevent the material from entering drains or water courses.
- Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up

Recovery

- Collect spillage.
- Pick up and transfer to properly labelled containers.
- Keep in suitable, closed containers for disposal.

Neutralization

- Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

Decontamination/cleaning

- Pick up contaminated soil.
- Clean contaminated floors and objects thoroughly while observing environmental regulations.
- Pick up and transfer to properly labelled containers.
- Keep in suitable, closed containers for disposal.
- Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

Disposal

- Dispose of contents/ container to an approved waste disposal plant.
- The product should not be allowed to enter drains, water courses or the soil.
- Dispose of in accordance with local regulations.

Additional advice

- Remove all incompatible materials as quickly as possible

6.4 Reference to other sections

- no data available

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Provide adequate ventilation.
- Handle in accordance with good industrial hygiene and safety practice.
- Wear personal protective equipment.
- Avoid inhalation, ingestion and contact with skin and eyes.

Hygiene measures

- Ensure that eyewash stations and safety showers are close to the workstation location.
- Use clean, well-maintained personal protection equipment.
- Wash hands before breaks and at the end of workday.
- When using do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions

- The floor of the depot should be impermeable and designed to form a water-tight basin.
- Keep only in the original container.
- Keep away from heat and sources of ignition.
- Keep in a dry, cool and well-ventilated place.
- Note: To ensure the product's validity period, it is recommended to inert with nitrogen (N₂) in storage.

Packaging material**Suitable material**

- Unlined steel
- Polyethylene terephthalate (PET)
- Plastic container of HDPE

Requirements for storage rooms and vessels

- Protect from frost, heat and sunlight.

7.3 Specific end use(s)

- no data available

SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

- Contains no substances with occupational exposure limit values above their regulatory reporting threshold.

8.2 Exposure controls**Individual protection measures****Respiratory protection**

- Use a respirator with an approved filter if a risk assessment indicates this is necessary.

Hand protection

- Where there is a risk of contact with hands, use appropriate gloves
- Gloves must be inspected prior to use.
- Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection

- Tightly fitting safety goggles

Skin and body protection

- Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Remove and wash contaminated clothing.

Hygiene measures

- Ensure that eyewash stations and safety showers are close to the workstation location.
- Use clean, well-maintained personal protection equipment.
- Wash hands before breaks and at the end of workday.
- When using do not eat, drink or smoke.

Protective measures

- Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards and/or risks that may occur during use.
- The protective equipment must be selected in accordance with current local standards and in cooperation with the supplier of the protective equipment.

Environmental exposure controls

- Dam up.
- Prevent product from entering sewage system.
- Try to prevent the material from entering drains or water courses.
- Local authorities should be advised if significant spillages cannot be contained.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

<u>Appearance</u>	<u>Form:</u> liquid
	<u>Physical state:</u> liquid
	<u>Colour:</u> colourless
<u>Odour</u>	slight
<u>Odour Threshold</u>	No data available
<u>Molecular weight</u>	132.16 g/mol
<u>pH</u>	Not applicable
<u>Melting point/freezing point</u>	<u>Freezing point:</u> -99 °C
<u>Initial boiling point and boiling range</u>	<u>Boiling point/boiling range:</u> 191 °C (1,013.25 hPa)
<u>Flash point</u>	91 °C closed cup 100 °C open cup
<u>Evaporation rate (Butylacetate = 1)</u>	0.03
<u>Flammability (solid, gas)</u>	No data available
<u>Flammability (liquids)</u>	No data available
<u>Flammability/Explosive limit</u>	No data available
<u>Auto-ignition temperature</u>	390 °C (1,013 hPa) Method: EU Test Guideline A15
<u>Vapour pressure</u>	0.05 hPa (20 °C)
<u>Vapour density</u>	2.6
<u>Density</u>	
<u>Relative density</u>	1.069 (20 °C)
<u>Solubility</u>	<u>Water solubility:</u> (20 °C)completely soluble <u>Solubility in other solvents:</u> Alcohol : miscible Esters : miscible Ether : miscible

Aromatic hydrocarbons : miscible

petroleum ether. : miscible

petrol : miscible

Partition coefficient: n-octanol/water No data available**Decomposition temperature** No data available**Viscosity** Viscosity, dynamic : 11 mPa.s (20 °C)**Explosive properties** No data available**Oxidizing properties** No data available**9.2 Other information****Surface tension** 33.5 mN/m (20 °C)**SECTION 10: Stability and reactivity****10.1 Reactivity**

- Not classified as a reactivity hazard.

10.2 Chemical stability

- Stable at room temperature.
- Stable under normal conditions.

10.3 Possibility of hazardous reactions

- Vapours may form explosive mixture with air.

10.4 Conditions to avoid

- Heat, flames and sparks.

10.5 Incompatible materials

- Strong oxidizing agents
- Strong acids

10.6 Hazardous decomposition products**Hazardous decomposition products**

- On combustion or on thermal decomposition (pyrolysis) releases:
- (Carbon oxides (CO + CO₂)).
- Acetic acid
- Ethanol

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity****Acute oral toxicity**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol LD50 : 7,000 mg/kg - Rat
Not classified as hazardous for acute oral toxicity according to GHS.
Published data

Acute inhalation toxicity

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



2,2-dimethyl-1,3-dioxolan-4-ylmethanol LC50 (dust/mist) : > 5.11 mg/l - Rat , male and female
 Method: OECD Test Guideline 403
 Not classified as hazardous for acute inhalation toxicity according to GHS.
 Aerosol
 No mortality observed at this concentration.
 Unpublished internal reports

Acute dermal toxicity

2,2-dimethyl-1,3-dioxolan-4-ylmethanol LD50 : 2,000 mg/kg - Rat , male and female
 Method: OECD Test Guideline 402
 Not classified as hazardous for acute dermal toxicity according to GHS.
 Unpublished internal reports

Acute toxicity (other routes of administration)

No data available

Skin corrosion/irritation

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Rabbit
 No skin irritation
 Method: OECD Test Guideline 404
 Unpublished internal reports

Serious eye damage/eye irritation

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Rabbit
 irritating
 Method: OECD Test Guideline 405
 Unpublished internal reports

Respiratory or skin sensitisation

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Maximisation Test - Guinea pig
 Does not cause skin sensitisation.
 Method: OECD Test Guideline 406
 Unpublished internal reports

Mutagenicity**Genotoxicity in vitro**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Ames test
 with and without metabolic activation

 negative
 Method: OECD Test Guideline 471
 Unpublished internal reports

Genotoxicity in vivo

2,2-dimethyl-1,3-dioxolan-4-ylmethanol In vivo micronucleus test - Mouse
 male
 Intraperitoneal route
 Method: OECD Test Guideline 474

 negative
 Unpublished internal reports

Carcinogenicity

No data available

Toxicity for reproduction and development**Toxicity to reproduction/Fertility**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Reproduction/developmental toxicity screening test - Rat, male and female, Oral
 Fertility NOAEL Parent: 1,000 mg/kg bw/day
 Method: OECD Test Guideline 422
 Highest dose tested, no impairment of fertility has been observed, Unpublished internal reports

Developmental Toxicity/Teratogenicity

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Rat, male and female, Oral
 General Toxicity Maternal NOAEL: 1,000 mg/kg bw/day

 Teratogenicity NOAEL F1:1,000mg/kg bw/day
 Embryo-foetal toxicity NOAEL F1: 1,000 mg/kg bw/day

 Method: OECD Test Guideline 414
 Highest dose tested, no embryotoxic or teratogenic effects have been observed, Unpublished internal reports

STOT**STOT - single exposure**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Exposure routes: Ingestion, Skin contact, Inhalation
 The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria.
 internal evaluation

STOT - repeated exposure

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Exposure routes: Ingestion, Inhalation
 The substance or mixture is not classified as specific target organ toxicant, repeated exposure according to GHS criteria.
 internal evaluation

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Oral - Rat , male and female
 NOAEL: 1000 mg/kg
 Method: OECD Test Guideline 422
 Highest dose tested
 No significant adverse effects were reported
 A testing proposal has been submitted to ECHA.
 Unpublished internal reports

 Inhalation (aerosol) 90-day - Rat , male and female
 NOAEC: > 5 mg/l
 Method: OECD Test Guideline 413
 Highest dose tested
 No significant adverse effects were reported
 Unpublished internal reports

Experience with human exposure No data available

Aspiration toxicity No data available

SECTION 12: Ecological information**12.1 Toxicity****Aquatic Compartment****Acute toxicity to fish**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol LC50 - 96 h : 16.7 g/l - Pimephales promelas (fathead minnow)
flow-through test
Analytical monitoring: yes

Method: according to a standardised method
Published data
Not harmful to fish (LC/LL50 > 100 mg/L)

Acute toxicity to daphnia and other aquatic invertebrates

2,2-dimethyl-1,3-dioxolan-4-ylmethanol EC50 - 48 h : > 96 mg/l - Daphnia similis (water flea)
static test
Analytical monitoring: yes
Method: OECD Test Guideline 202
Not harmful to aquatic invertebrates. (EC/EL50 > 100 mg/L)
Unpublished internal reports

Toxicity to aquatic plants

2,2-dimethyl-1,3-dioxolan-4-ylmethanol ErC50 - 72 h : > 92 mg/l - Pseudokirchneriella subcapitata (green algae)
static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
Not harmful to algae (EC/EL50 > 100 mg/L)
Unpublished internal reports

NOEC - 72 h : 92 mg/l - Pseudokirchneriella subcapitata (green algae)
static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
No adverse chronic effect observed up to and including the threshold of 1 mg/L.
Unpublished internal reports

Toxicity to microorganisms

2,2-dimethyl-1,3-dioxolan-4-ylmethanol EC50 - 3 h : > 1,000 mg/l - activated sludge
static test
Analytical monitoring: no
Method: OECD Test Guideline 209
Unpublished internal reports

Chronic toxicity to fish

No data available

Chronic toxicity to daphnia and other aquatic invertebrates

2,2-dimethyl-1,3-dioxolan-4-ylmethanol semi-static test

NOEC: 10 mg/l - 21 Days - Daphnia magna (Water flea)
flow-through test
Analytical monitoring: yes
End point: Reproduction
Method: OECD Test Guideline 211
No adverse chronic effect observed up to and including the threshold of 1 mg/L.

Terrestrial Compartment

Toxicity to soil dwelling organisms

2,2-dimethyl-1,3-dioxolan-4-ylmethanol NOEC: 250 mg/kg - 56 Days - Eisenia fetida (earthworms)
End point: Reproduction
Method: OECD Test Guideline 222
Unpublished internal reports

NOEC: 12.5 mg/kg - 28 Days - soil micro-organisms
End point: Nitrogen transformation
Method: OECD Test Guideline 216

Unpublished internal reports

12.2 Persistence and degradability**Abiotic degradation****Stability in water**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol pH: 4.0
 Temperature of hydrolysis: 25 °C
 Degree of hydrolysis: 50 %
 Hydrolysis time: 0.959 Days
 Method: OECD Test Guideline 111
 Unpublished internal reports

Physical- and photo-chemical elimination

No data available

Biodegradation**Biodegradability**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Ready biodegradability study:
 Method: OECD Test Guideline 301 D
 4 % - 28 Days
 The substance does not fulfill the criteria for ready biodegradability and ultimate aerobic biodegradability
 Theoretical oxygen demand
 Inoculum: activated sludge
 Unpublished internal reports

Inherent biodegradability study
 Method: OECD Test Guideline 302 B
 25 % - 28 Days
 The substance fulfills the criteria for inherent primary biodegradability
 Dissolved organic carbon (DOC)
 Inoculum: activated sludge
 Conc. in standard unit mg/l: 10 mg/l
 Unpublished internal reports

Degradability assessment

2,2-dimethyl-1,3-dioxolan-4-ylmethanol The product is not considered to be rapidly degradable in the environment

12.3 Bioaccumulative potential**Partition coefficient: n-octanol/water**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Not potentially bioaccumulable

Bioconcentration factor (BCF)

No data available

12.4 Mobility in soil**Adsorption potential (Koc)**

2,2-dimethyl-1,3-dioxolan-4-ylmethanol Adsorption/Soil
 Log Koc: < 1.25
 Method: OECD Test Guideline 121
 Unpublished internal reports

Known distribution to environmental compartments

No data available

12.5 Results of PBT and vPvB assessment This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

Ecotoxicity assessment

Short-term (acute) aquatic hazard

2,2-dimethyl-1,3-dioxolan-4-ylmethanol The product does not have any known adverse effects on the aquatic organisms tested

Long-term (chronic) aquatic hazard

2,2-dimethyl-1,3-dioxolan-4-ylmethanol No adverse chronic effect observed up to and including the threshold of 1 mg/L.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

- Do not dispose of with domestic refuse.
- Dispose of in accordance with local regulations.
- The product should not be allowed to enter drains, water courses or the soil.
- Dispose of contents/ container to an approved waste disposal plant.
- Send to a licensed waste management company.

Advice on cleaning and disposal of packaging

- Do not re-use empty containers.
- Clean container with water.

- Dispose of contents/ container to an approved incineration plant.

- Dispose of in accordance with local regulations.

SECTION 14: Transport information

ADN/ADNR

not regulated

ADR

not regulated

RID

not regulated

IMDG

not regulated

IATA

not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Restrictions on the

Requirements of Annex XVII to Regulation (EC) 1907/2006 apply to this

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)

product. The precise list of restricted uses is available in the corresponding entry of this annex.
Number on list: 3

Shall not be used in: - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, - tricks and jokes, - games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Notification status

Inventory Information	Status
United States TSCA Inventory	- On TSCA Inventory
Canadian Domestic Substances List (DSL)	- All components of this product are on the Canadian DSL
Australia Inventory of Chemical Substances (AICS)	- On the inventory, or in compliance with the inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- On the inventory, or in compliance with the inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- On the inventory, or in compliance with the inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- On the inventory, or in compliance with the inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- Listed on Inventory
Taiwan Chemical Substance Inventory (TCSI)	- Listed on Inventory
EU. European Registration, Evaluation, Authorisation and Restriction of Chemical (REACH)	- If product is purchased from Solvay in Europe it is in compliance with REACH, if not please contact the supplier.
New Zealand. Inventory of Chemical Substances	- On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

- A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information**Full text of H-Statements referred to under sections 2 and 3.**

- H319 Causes serious eye irritation.

Key or legend to abbreviations and acronyms used in the safety data sheet

- ADR: European Agreement on International Carriage of Dangerous Goods by Road.
- ADN: European Agreement on the International Carriage of Dangerous Goods by Inland Waterways.
- RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
- IATA: International Air Transport Association.
- ICAO-TI: Technical Instructions for Safe Transport of Dangerous Goods by Air.
- IMDG: International Maritime Dangerous Goods.
- TWA: Time weighted average
- ATE: Estimated value of acute toxicity
- EC: European Community number

- CAS: Chemical Abstracts Service.
- LD50: Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).
- LC50: Substance concentration causing 50% (half) death in the test animals group.
- EC50: Effective Concentration of the substance causing the maximum of 50%.
- PBT: Persistent, Bioaccumulative and Toxic substance.
- vPvB: Very Persistent and Very Bioaccumulative.
- GHS/CLP/SEA: Classification, labeling, packaging regulation
- DNEL: Derived No Effect Level
- PNEC: Predicted No Effect Concentration
- STOT: Specific Target Organ Toxicity

Not all acronyms listed above are referenced in this SDS.

Further information

- Update
- Exposure scenario

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.

Annex

Scenario List

1. ES1 : Formulation of biocidal products	15
2. ES2 : Use into insect repellent products	21
3. ES3 : Formulation, On site	23
4. ES4 : Formulation, Used for formulation of homecare products, Used for formulation of personal care products	27
5. ES5 : Professional end-use of polishes and wax blends (IFRA GES 5)	35
6. ES6 : Use in formulation, end-products	39
7. ES7 : Industrial use, Use in formulation, Cosmetic products	46
8. ES8 : Industrial use, end-products	53
9. ES9 : Professional use, end-products	65
10. ES10 : Use at industrial site, Use in Cleaning Agents	78
11. ES11 : Use at industrial site, Industrial use, Use as an intermediate	81
12. ES12 : Consumers end-use of washing and cleaning products (IFRA GES 6)	87
13. ES13 : Consumer end-use of air care products (IFRA GES 7)	88
14. ES14 : Consumers end-use polishes and wax blends (IFRA GES 9)	89
15. ES15 : Consumer use, End use of cosmetic products	90

1. ES1 : Formulation of biocidal products

1.1. Scenario description

Main User Groups	: SU 3	Industrial uses: Uses of substances as such or in preparations at industrial sites
Process category	: PROC8b	Transfer of substance or mixture (charging/discharging) at dedicated facilities
	PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
	PROC5	Mixing or blending in batch processes
	PROC15	Use as laboratory reagent

1.2. Conditions of use affecting exposure

1.2.1 Contributing scenario controlling worker exposure for: PROC8b Transfer of substance or mixture (charging/discharging) at dedicated facilities, Loading bulk raw material, < 8h, OC9 Outdoor

Product characteristics

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: Liquid
Remarks	: Low vapour pressure

Frequency and duration of use

Duration of the activity	: <= 8 h
--------------------------	----------

Other operational conditions affecting workers exposure

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Outdoor / Indoor : Outdoor
 Temperature : <= 40 °C

Organisational measures to prevent /limit releases, dispersion and exposure

Avoid splashing.
 Assumes a good basic standard of occupational hygiene is implemented.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands.
 Use suitable eye protection.
 General measures (eye irritants)
 Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 90 %)

1.2.2 Contributing scenario controlling worker exposure for: PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition, < 8h, OC9 Outdoor**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
 Physical Form (at time of use) : Liquid
 Remarks : Low vapour pressure

Frequency and duration of use

Duration of the activity : <= 8 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Outdoor
 Temperature : <= 40 °C
 Remarks : Use in closed process, With occasional controlled exposure.

Organisational measures to prevent /limit releases, dispersion and exposure

Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands.
 Use suitable eye protection.
 General measures (eye irritants)

1.2.3 Contributing scenario controlling worker exposure for: PROC3 Use in closed batch process (synthesis or formulation), < 8h, OC8 Indoor, CS110 without local exhaust ventilation**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
 Physical Form (at time of use) : liquid
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor
 Temperature : <= 40 °C
 Remarks : Use in closed process, With occasional controlled exposure.

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Use suitable eye protection.

1.2.4 Contributing scenario controlling worker exposure for: PROC3 Use in closed batch process (synthesis or formulation), < 8h, OC8 Indoor, CS109 with local exhaust ventilation**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: liquid
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 8 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
Temperature	: <= 40 °C
Remarks	: Use in closed process, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation (for dermal), Dermal exposure (Effectiveness (of a measure): 90 %)
with local exhaust ventilation, Inhalation exposure (Effectiveness (of a measure): 90 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Use suitable eye protection.

1.2.5 Contributing scenario controlling worker exposure for: PROC8b Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities, < 8h, OC8 Indoor**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: Liquid
Remarks	: Low vapour pressure

Frequency and duration of use

Duration of the activity	: <= 8 h
--------------------------	----------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
------------------	----------

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com

Temperature : <= 40 °C

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation, Inhalation exposure (Effectiveness (of a measure): 95 %)
with local exhaust ventilation, Dermal exposure (Effectiveness (of a measure): 95 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Avoid splashing.
Assumes a good basic standard of occupational hygiene is implemented.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands.
Use suitable eye protection.
General measures (eye irritants)
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 90 %)

1.2.6 Contributing scenario controlling worker exposure for: PROC8b Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities, < 8h, OC9 Outdoor

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Liquid
Remarks : Low vapour pressure

Frequency and duration of use

Duration of the activity : <= 8 h

Human factors not influenced by risk management

Dermal exposure : Two hands (960 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Outdoor
Temperature : <= 40 °C

Organisational measures to prevent /limit releases, dispersion and exposure

Avoid splashing.
Assumes a good basic standard of occupational hygiene is implemented.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands.
Use suitable eye protection.
General measures (eye irritants)
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 90 %)

1.2.7 Contributing scenario controlling worker exposure for: PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : liquid
Remarks : Low vapour pressure

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposureOutdoor / Indoor : Indoor
Temperature : <= 40 °C**Technical conditions and measures**

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation (for dermal), Dermal exposure (Effectiveness (of a measure): 90 %)
with local exhaust ventilation, Inhalation exposure (Effectiveness (of a measure): 90 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 90 %)

1.2.8 Contributing scenario controlling worker exposure for: PROC15 Use as laboratory reagent**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : liquid
Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposureOutdoor / Indoor : Indoor
Temperature : <= 40 °C**Technical conditions and measures**

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation, Inhalation exposure (Effectiveness (of a measure): 90 %)
with local exhaust ventilation, Dermal exposure (Effectiveness (of a measure): 90 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 90 %)

1.3. Exposure estimation and reference to its source**Human Health**

Contributing Scenario	Specific conditions	Value type	Level of Exposure	RCR
For all PROC	Qualitative approach used to conclude safe use.	All routes		
For all PROC	Qualitative approach used to conclude safe use.	All routes		

RCR = Risk characterisation ratio

For all PROC
For all PROC

Exposure Assessment Method : Qualitative approach used to conclude safe use.
Exposure Assessment Method : Qualitative approach used to conclude safe use.

1.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Risk management measures are based on qualitative risk characterisation.
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Risk management measures are based on qualitative risk characterisation.
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

2. ES2 : Use into insect repellent products

2.1. Scenario description

Main User Groups	:	SU 21	Consumer uses: Private households (= general public = consumers)
Product category	:	PC8	Biocidal products

2.2. Conditions of use affecting exposure

2.2.1 Contributing scenario controlling consumer exposure for: PC8 Biocidal products OC8 Indoor,

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Amount

Amount used per event : <= 10 g/event

Frequency and duration of use

Exposure duration : 0.01 h
Frequency of use : 5 events/day

Human factors not influenced by risk management

Dermal exposure : whole body

Other given operational conditions affecting consumers exposure

Outdoor / Indoor : Indoor

Conditions and measures related to protection of consumer (e.g. behavioural advice, personal protection and hygiene)

Consumer Measures : Assumes a good basic standard of occupational hygiene is implemented.
Consumer Measures : General measures (eye irritants)
Consumer Measures : Avoid direct eye contact with product, also via contamination on hands.
Consumer Measures : Avoid splashing.

2.2.2 Contributing scenario controlling consumer exposure for: PC8 Biocidal products OC9 Outdoor,

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).

Amount

Amount used per event : <= 10 g/event

Frequency and duration of use

Exposure duration : 0.01 h
Frequency of use : 5 events/day

Human factors not influenced by risk management

Dermal exposure : whole body

Other given operational conditions affecting consumers exposure

Outdoor / Indoor : Outdoor

Conditions and measures related to protection of consumer (e.g. behavioural advice, personal protection and hygiene)

- Consumer Measures : Assumes a good basic standard of occupational hygiene is implemented.
- Consumer Measures : General measures (eye irritants)
- Consumer Measures : Avoid direct eye contact with product, also via contamination on hands.
- Consumer Measures : Avoid splashing.

2.3. Exposure estimation and reference to its source**Human Health**

Contributing Scenario	Specific conditions	Value type	Level of Exposure	RCR
For all PROC	Qualitative approach used to conclude safe use.	All routes		

RCR = Risk characterisation ratio

For all PROC Exposure Assessment Method : Qualitative approach used to conclude safe use.

2.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Risk management measures are based on qualitative risk characterisation.
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

3. ES3 : Formulation, On site**3.1. Scenario description**

Main User Groups	:	SU 3	Industrial uses: Uses of substances as such or in preparations at industrial sites
Process category	:	PROC3 PROC8b PROC15 PROC5	Use in closed batch process (synthesis or formulation) Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities Use as laboratory reagent Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)

3.2. Conditions of use affecting exposure**3.2.1 Contributing scenario controlling worker exposure for: PROC3 Use in closed batch process (synthesis or formulation), < 8h, OC8 Indoor****Product characteristics**

Concentration of the Substance in Mixture/Article	:	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	:	liquid
Process Temperature	:	<= 40 °C
Remarks	:	Low vapour pressure

Frequency and duration of use

Exposure duration	:	< 8 h
-------------------	---	-------

Other operational conditions affecting workers exposure

Outdoor / Indoor	:	Indoor
Remarks	:	Use in closed process, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Use suitable eye protection.

3.2.2 Contributing scenario controlling worker exposure for: PROC8b Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities, < 8h**Product characteristics**

Concentration of the Substance in Mixture/Article	:	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	:	Liquid
Remarks	:	Low vapour pressure

Frequency and duration of use

Duration of the activity	:	<= 8 h
--------------------------	---	--------

AUGEO CLEAN MULTI

Revision Date 02.06.2020

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor
 Temperature : <= 40 °C

Organisational measures to prevent /limit releases, dispersion and exposure

Avoid splashing.
 Assumes a good basic standard of occupational hygiene is implemented.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands.
 Use suitable eye protection.
 General measures (eye irritants)
 Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 90 %)

3.2.3 Contributing scenario controlling worker exposure for: PROC8b Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities, <15 min, OC8 Indoor**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
 Physical Form (at time of use) : liquid
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor
 Temperature : <= 40 °C

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
 Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 90 %)

3.2.4 Contributing scenario controlling worker exposure for: PROC15 Use as laboratory reagent**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
 Physical Form (at time of use) : liquid
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Outdoor / Indoor : Indoor
 Temperature : <= 40 °C

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
 Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 90 %)

3.2.5 Contributing scenario controlling worker exposure for: PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
 Physical Form (at time of use) : liquid
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor
 Temperature : <= 40 °C

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
 Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 90 %)

3.3. Exposure estimation and reference to its source**Human Health**

Contributing Scenario	Specific conditions	Value type	Level of Exposure	RCR
For all PROC	Qualitative approach used to conclude safe use.	All routes		

RCR = Risk characterisation ratio

For all PROC Exposure Assessment Method : Qualitative approach used to conclude safe use.

3.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Risk management measures are based on qualitative risk characterisation.
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

4. ES4 : Formulation, Used for formulation of homecare products, Used for formulation of personal care products

4.1. Scenario description

Main User Groups	:	SU 3	Industrial uses: Uses of substances as such or in preparations at industrial sites
Process category	:	PROC1	Use in closed process, no likelihood of exposure
	:	PROC2	Use in closed, continuous process with occasional controlled exposure
	:	PROC3	Use in closed batch process (synthesis or formulation)
	:	PROC4	Use in batch and other process (synthesis) where opportunity for exposure arises
	:	PROC15	Use as laboratory reagent
	:	PROC8b	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
	:	PROC5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)
	:	PROC14	Production of preparations or articles by tableting, compression, extrusion, pelletisation
	:	PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
	:	PROC8a	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities

4.2. Conditions of use affecting exposure

4.2.1 Contributing scenario controlling worker exposure for: PROC1 Use in closed process, no likelihood of exposure, OC8 Indoor

Product characteristics

Concentration of the Substance in Mixture/Article		Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	:	liquid
Process Temperature	:	<= 40 °C
Remarks	:	Low vapour pressure

Frequency and duration of use

Exposure duration	:	< 1 h
-------------------	---	-------

Other operational conditions affecting workers exposure

Outdoor / Indoor	:	Indoor
Remarks	:	Use in closed process

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

4.2.2 Contributing scenario controlling worker exposure for: PROC2 Use in closed, continuous process with occasional controlled exposure, PROC3 Use in closed batch process (synthesis or formulation), OC8 Indoor, <1 hr., CS110 without local exhaust ventilation, Gloves

Product characteristics

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 1 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
Remarks	: Use in closed process

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

4.2.3 Contributing scenario controlling worker exposure for: PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises

Product characteristics

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 1 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
Remarks	: Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation, Inhalation exposure (Effectiveness (of a measure): 90 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

4.2.4 Contributing scenario controlling worker exposure for: PROC3 Use in closed batch process (synthesis or formulation), <1 hr., CS109 with local exhaust ventilation, Without gloves**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
Remarks	: Use in closed process

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation, Inhalation exposure (Effectiveness (of a measure): 90 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Risk of aerosols formation, Wear respiratory protection.

4.2.5 Contributing scenario controlling worker exposure for: PROC3 Use in closed batch process (synthesis or formulation), <15 min**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
Remarks	: Use in closed process

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

4.2.6 Contributing scenario controlling worker exposure for: PROC15 Use as laboratory reagent

Product characteristics

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation, Inhalation exposure (Effectiveness (of a measure): 90 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

4.2.7 Contributing scenario controlling worker exposure for: PROC8b Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities

Product characteristics

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor
Remarks : Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation, Inhalation exposure (Effectiveness (of a measure): 95 %)

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

4.2.8 Contributing scenario controlling worker exposure for: PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 8 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
------------------	----------

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation, Inhalation exposure (Effectiveness (of a measure): 90 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

4.2.9 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 1 h
-------------------	---------

Other operational conditions affecting workers exposure

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation, Inhalation exposure (Effectiveness (of a measure): 90 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

4.2.10 Contributing scenario controlling worker exposure for: PROC14 Production of preparations or articles by tableting, compression, extrusion, pelletisation

Product characteristics

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation, Inhalation exposure (Effectiveness (of a measure): 90 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)
Risk of aerosols formation, Wear respiratory protection.

4.2.11 Contributing scenario controlling worker exposure for: PROC9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Remarks : Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation, Inhalation exposure (Effectiveness (of a measure): 90 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

4.2.12 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities, CS39 Equipment cleaning and maintenance**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 4 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

4.2.13 Contributing scenario controlling worker exposure for: PROC1 Use in closed process, no likelihood of exposure, PROC2 Use in closed, continuous process with occasional controlled exposure, OC9 Outdoor**Product characteristics**

Concentration of the Substance in : Covers the percentage of the substance in the product up to 100 %

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Mixture/Article (unless stated differently).
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Outdoor
 Remarks : Use in closed process

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

4.3. Exposure estimation and reference to its source**Human Health**

Contributing Scenario	Specific conditions	Value type	Level of Exposure	RCR
For all PROC	Qualitative approach used to conclude safe use.	All routes		

RCR = Risk characterisation ratio

For all PROC Exposure Assessment Method : Qualitative approach used to conclude safe use.

4.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Risk management measures are based on qualitative risk characterisation.
 Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

5. ES5 : Professional end-use of polishes and wax blends (IFRA GES 5)**5.1. Scenario description**

Main User Groups	:	SU 22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Process category	:	PROC10	Roller application or brushing
	:	PROC11	Non industrial spraying
	:	PROC8a	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
	:	PROC2	Use in closed, continuous process with occasional controlled exposure

5.2. Conditions of use affecting exposure**5.2.1 Contributing scenario controlling worker exposure for: PROC10 Roller application or brushing, < 8h****Product characteristics**

Concentration of the Substance in Mixture/Article	:	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	:	liquid
Process Temperature	:	<= 40 °C
Remarks	:	Low vapour pressure

Frequency and duration of use

Exposure duration	:	< 8 h
-------------------	---	-------

Other operational conditions affecting workers exposure

Outdoor / Indoor	:	Indoor
------------------	---	--------

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

5.2.2 Contributing scenario controlling worker exposure for: PROC11 Non industrial spraying**Product characteristics**

Concentration of the Substance in Mixture/Article	:	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	:	liquid
Process Temperature	:	<= 40 °C
Remarks	:	Low vapour pressure

Frequency and duration of use

Exposure duration	:	< 15 min
-------------------	---	----------

Other operational conditions affecting workers exposure

Outdoor / Indoor	:	Indoor
------------------	---	--------

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

5.2.3 Contributing scenario controlling worker exposure for: PROC10 Roller application or brushing, maintenance products, Furniture care product, Leather care product, < 4h**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 4 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
------------------	----------

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

5.2.4 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities, maintenance products, Leather care product, Without gloves, Without respiratory protection**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 15 min
-------------------	------------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
------------------	----------

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

5.2.5 Contributing scenario controlling worker exposure for: PROC2 Use in closed, continuous process with occasional controlled exposure**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor
Remarks : Use in closed process

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

5.2.6 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities, Gloves, Respiratory protection**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.

Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

Respirator, APF 10 (Effectiveness (of a measure): 90 %)

5.3. Exposure estimation and reference to its source

Human Health

Contributing Scenario	Specific conditions	Value type	Level of Exposure	RCR
For all PROC	Qualitative approach used to conclude safe use.	All routes		

RCR = Risk characterisation ratio

For all PROC Exposure Assessment Method : Qualitative approach used to conclude safe use.

5.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Risk management measures are based on qualitative risk characterisation.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

6. ES6 : Use in formulation, end-products

6.1. Scenario description

Main User Groups	:	SU 3	Industrial uses: Uses of substances as such or in preparations at industrial sites
Process category	:	PROC8b	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
		PROC2	Use in closed, continuous process with occasional controlled exposure
		PROC15	Use as laboratory reagent
		PROC1	Use in closed process, no likelihood of exposure
		PROC3	Use in closed batch process (synthesis or formulation)
		PROC5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)
		PROC8a	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
		PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
		PROC14	Production of preparations or articles by tableting, compression, extrusion, pelletisation

6.2. Conditions of use affecting exposure

6.2.1 Contributing scenario controlling worker exposure for: PROC8b Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities, 5-25 %

Product characteristics

Concentration of the Substance in Mixture/Article		Covers the percentage of the substance in the product up to 25 %.
Physical Form (at time of use)	:	liquid
Process Temperature	:	<= 40 °C
Remarks	:	Low vapour pressure

Frequency and duration of use

Exposure duration	:	< 1 h
-------------------	---	-------

Other operational conditions affecting workers exposure

Outdoor / Indoor	:	Indoor
Remarks	:	Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

6.2.2 Contributing scenario controlling worker exposure for: PROC2 Use in closed, continuous process with occasional controlled exposure

AUGEO CLEAN MULTI

Revision Date 02.06.2020

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 25 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Remarks : Use in closed process

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

6.2.3 Contributing scenario controlling worker exposure for: PROC15 Use as laboratory reagent, 5-25 %**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 25 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

6.2.4 Contributing scenario controlling worker exposure for: PROC1 Use in closed process, no likelihood of exposure**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 25 %.

Physical Form (at time of use) : liquid

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Process Temperature : ≤ 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor
 Remarks : Use in closed process

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

6.2.5 Contributing scenario controlling worker exposure for: PROC3 Use in closed batch process (synthesis or formulation)**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 25 %.
 Physical Form (at time of use) : liquid
 Process Temperature : ≤ 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 4 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor
 Remarks : Use in closed process

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

6.2.6 Contributing scenario controlling worker exposure for: PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 25 %.
 Physical Form (at time of use) : liquid
 Process Temperature : ≤ 40 °C

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 4 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

6.2.7 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities

Product characteristics

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 4 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

6.2.8 Contributing scenario controlling worker exposure for: PROC2 Use in closed, continuous process with occasional controlled exposure

Product characteristics

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



AUGEO CLEAN MULTI

Revision Date 02.06.2020

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposureOutdoor / Indoor : Indoor
Remarks : Use in closed process**Technical conditions and measures**

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposureAssumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.**Conditions and measures related to personal protection, hygiene and health evaluation**

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

6.2.9 Contributing scenario controlling worker exposure for: PROC15 Use as laboratory reagent, < 1%**Product characteristics**Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure**Frequency and duration of use**

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposureAssumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.**Conditions and measures related to personal protection, hygiene and health evaluation**

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

6.2.10 Contributing scenario controlling worker exposure for: PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises, < 1%**Product characteristics**Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure**Frequency and duration of use**

Exposure duration : < 1 h

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor
 Remarks : Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

6.2.11 Contributing scenario controlling worker exposure for: PROC9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing)**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor
 Remarks : Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

6.2.12 Contributing scenario controlling worker exposure for: PROC14 Production of preparations or articles by tableting, compression, extrusion, pelletisation**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 8 h

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.

Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

Risk of aerosols formation, Wear respiratory protection.

6.3. Exposure estimation and reference to its source**Human Health**

Contributing Scenario	Specific conditions	Value type	Level of Exposure	RCR
For all PROC	Qualitative approach used to conclude safe use.	All routes		

RCR = Risk characterisation ratio

For all PROC Exposure Assessment Method : Qualitative approach used to conclude safe use.

6.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Risk management measures are based on qualitative risk characterisation.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

7. ES7 : Industrial use, Use in formulation, Cosmetic products

7.1. Scenario description

Main User Groups	:	SU 3	Industrial uses: Uses of substances as such or in preparations at industrial sites
Process category	:	PROC8b	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
		PROC2	Use in closed, continuous process with occasional controlled exposure
		PROC15	Use as laboratory reagent
		PROC1	Use in closed process, no likelihood of exposure
		PROC3	Use in closed batch process (synthesis or formulation)
		PROC5	Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)
		PROC8a	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
		PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

7.2. Conditions of use affecting exposure

7.2.1 Contributing scenario controlling worker exposure for: PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact), 100 %

Product characteristics

Concentration of the Substance in Mixture/Article		Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	:	liquid
Process Temperature	:	<= 40 °C
Remarks	:	Low vapour pressure

Frequency and duration of use

Exposure duration	:	< 1 h
-------------------	---	-------

Other operational conditions affecting workers exposure

Outdoor / Indoor	:	Indoor
Remarks	:	Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

7.2.2 Contributing scenario controlling worker exposure for: PROC2 Use in closed, continuous process with occasional controlled exposure, 100 %

Product characteristics

Concentration of the Substance in		Covers the percentage of the substance in the product up to 100 %
-----------------------------------	--	---

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



AUGEO CLEAN MULTI

Revision Date 02.06.2020

Mixture/Article (unless stated differently).
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor
 Remarks : Use in closed process

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

7.2.3 Contributing scenario controlling worker exposure for: PROC15 Use as laboratory reagent, 100 %**Product characteristics**

Concentration of the Substance in Mixture/Article Covers the percentage of the substance in the product up to 100 % (unless stated differently).
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

7.2.4 Contributing scenario controlling worker exposure for: PROC1 Use in closed process, no likelihood of exposure**Product characteristics**

Concentration of the Substance in Mixture/Article Covers the percentage of the substance in the product up to 100 % (unless stated differently).
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposureOutdoor / Indoor : Indoor
Remarks : Use in closed process**Technical conditions and measures**

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposureAssumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.**Conditions and measures related to personal protection, hygiene and health evaluation**

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

7.2.5 Contributing scenario controlling worker exposure for: PROC3 Use in closed batch process (synthesis or formulation)**Product characteristics**Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure**Frequency and duration of use**

Exposure duration : < 4 h

Other operational conditions affecting workers exposureOutdoor / Indoor : Indoor
Remarks : Use in closed process**Technical conditions and measures**

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposureAssumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.**Conditions and measures related to personal protection, hygiene and health evaluation**

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

7.2.6 Contributing scenario controlling worker exposure for: PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)**Product characteristics**Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 4 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposureAssumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.**Conditions and measures related to personal protection, hygiene and health evaluation**

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

7.2.7 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities**Product characteristics**Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 25 %.
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure**Frequency and duration of use**

Exposure duration : < 4 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposureAssumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.**Conditions and measures related to personal protection, hygiene and health evaluation**

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

7.2.8 Contributing scenario controlling worker exposure for: PROC2 Use in closed, continuous process with occasional controlled exposure**Product characteristics**Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 25 %.
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure**Frequency and duration of use**

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



AUGEO CLEAN MULTI

Revision Date 02.06.2020

Exposure duration : < 15 min

Other operational conditions affecting workers exposureOutdoor / Indoor : Indoor
Remarks : Use in closed process**Technical conditions and measures**

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposureAssumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.**Conditions and measures related to personal protection, hygiene and health evaluation**

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

7.2.9 Contributing scenario controlling worker exposure for: PROC15 Use as laboratory reagent, 5-25 %**Product characteristics**Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 25 %
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure**Frequency and duration of use**

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposureAssumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.**Conditions and measures related to personal protection, hygiene and health evaluation**

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

7.2.10 Contributing scenario controlling worker exposure for: PROC8b Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities, 5-25 %**Product characteristics**Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 25 % (unless stated differently).
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure**Frequency and duration of use**

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



AUGEO CLEAN MULTI

Revision Date 02.06.2020

Outdoor / Indoor : Indoor
 Remarks : Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.

Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

7.2.11 Contributing scenario controlling worker exposure for: PROC9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing)**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 25 %.
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor
 Remarks : Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.

Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

7.3. Exposure estimation and reference to its source**Human Health**

Contributing Scenario	Specific conditions	Value type	Level of Exposure	RCR
For all PROC	Qualitative approach used to conclude safe use.	All routes		

RCR = Risk characterisation ratio

For all PROC Exposure Assessment Method : Qualitative approach used to conclude safe use.

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



7.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Risk management measures are based on qualitative risk characterisation.
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

8. ES8 : Industrial use, end-products

8.1. Scenario description

Main User Groups	:	SU 3	Industrial uses: Uses of substances as such or in preparations at industrial sites
Process category	:	PROC8b	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
		PROC2	Use in closed, continuous process with occasional controlled exposure
		PROC8a	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
		PROC4	Use in batch and other process (synthesis) where opportunity for exposure arises
		PROC7	Industrial spraying
		PROC10	Roller application or brushing
		PROC13	Treatment of articles by dipping and pouring

8.2. Conditions of use affecting exposure

8.2.1 Contributing scenario controlling worker exposure for: PROC8b Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities, CS110 without local exhaust ventilation

Product characteristics

Concentration of the Substance in Mixture/Article		Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	:	liquid
Process Temperature	:	<= 40 °C
Remarks	:	Low vapour pressure

Frequency and duration of use

Exposure duration	:	< 15 min
-------------------	---	----------

Other operational conditions affecting workers exposure

Outdoor / Indoor	:	Indoor
Remarks	:	Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

8.2.2 Contributing scenario controlling worker exposure for: PROC2 Use in closed, continuous process with occasional controlled exposure, <15 min, CS109 with local exhaust ventilation

Product characteristics

Concentration of the Substance in		Covers percentage substance in the product up to 1 %.
-----------------------------------	--	---

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Mixture/Article
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor
 Remarks : Use in closed process

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
 with local exhaust ventilation (Effectiveness (of a measure): 90 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
 Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

8.2.3 Contributing scenario controlling worker exposure for: PROC2 Use in closed, continuous process with occasional controlled exposure, <15 min, CS110 without local exhaust ventilation**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor
 Remarks : Use in closed process

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
 Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

8.2.4 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/discharging) from/ to vessels/ large containers at non-dedicated facilities, OC9 Outdoor

Product characteristics

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Outdoor

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

8.2.5 Contributing scenario controlling worker exposure for: PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises, OC9 Outdoor

Product characteristics

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Outdoor

Remarks : Semi-closed system, With occasional controlled exposure.

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

8.2.6 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/discharging) from/ to vessels/ large containers at non-dedicated facilities, <1 hr., CS110 without local exhaust ventilation**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 1 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
------------------	----------

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

8.2.7 Contributing scenario controlling worker exposure for: PROC7 Industrial spraying, OC9 Outdoor**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 1 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Outdoor
------------------	-----------

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

8.2.8 Contributing scenario controlling worker exposure for: PROC10 Roller application or brushing, OC9 Outdoor**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 8 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Outdoor
------------------	-----------

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

8.2.9 Contributing scenario controlling worker exposure for: PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises, OC8 Indoor, CS110 without local exhaust ventilation**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 8 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
Remarks	: Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

8.2.10 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/discharging) from/ to vessels/ large containers at non-dedicated facilities, <15 min, CS110 without local exhaust ventilation

Product characteristics

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 15 min
-------------------	------------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
------------------	----------

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

8.2.11 Contributing scenario controlling worker exposure for: PROC7 Industrial spraying, Chain maintenance product

Product characteristics

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 8 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
------------------	----------

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

8.2.12 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/discharging) from/ to vessels/ large containers at non-dedicated facilities, OC8 Indoor, CS109 with local exhaust ventilation

Product characteristics

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation (Effectiveness (of a measure): 90 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

8.2.13 Contributing scenario controlling worker exposure for: PROC7 Industrial spraying, OC8 Indoor, <15 min, CS110 without local exhaust ventilation

Product characteristics

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
 Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)
 Respirator, APF 10 (Effectiveness (of a measure): 90 %)

8.2.14 Contributing scenario controlling worker exposure for: PROC7 Industrial spraying, OC8 Indoor, <15 min, CS109 with local exhaust ventilation

Product characteristics

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
 with local exhaust ventilation (Effectiveness (of a measure): 95 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
 Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

8.2.15 Contributing scenario controlling worker exposure for: PROC10 Roller application or brushing, OC8 Indoor, CS110 without local exhaust ventilation

Product characteristics

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

8.2.16 Contributing scenario controlling worker exposure for: PROC7 Industrial spraying, general surface cleaning products**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)
Respirator, APF 10 (Effectiveness (of a measure): 90 %)

8.2.17 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities, <15 min, CS109 with local exhaust ventilation**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation (Effectiveness (of a measure): 90 %)

Organisational measures to prevent /limit releases, dispersion and exposure

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

8.2.18 Contributing scenario controlling worker exposure for: PROC10 Roller application or brushing, OC8 Indoor, CS109 with local exhaust ventilation

Product characteristics

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 8 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
------------------	----------

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation, Inhalation exposure (Effectiveness (of a measure): 90 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

8.2.19 Contributing scenario controlling worker exposure for: PROC8b Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities, CS109 with local exhaust ventilation

Product characteristics

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 15 min
-------------------	------------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
Remarks	: Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation (Effectiveness (of a measure): 95 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

8.2.20 Contributing scenario controlling worker exposure for: PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises, OC8 Indoor, CS109 with local exhaust ventilation**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 8 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
Remarks	: Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation (Effectiveness (of a measure): 90 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

8.2.21 Contributing scenario controlling worker exposure for: PROC2 Use in closed, continuous process with occasional controlled exposure, < 8h**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposureOutdoor / Indoor : Indoor
Remarks : Use in closed process**Technical conditions and measures**Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation (Effectiveness (of a measure): 90 %)**Organisational measures to prevent /limit releases, dispersion and exposure**Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.**Conditions and measures related to personal protection, hygiene and health evaluation**Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)**8.3. Exposure estimation and reference to its source****Human Health**

Contributing Scenario	Specific conditions	Value type	Level of Exposure	RCR
For all PROC	Qualitative approach used to conclude safe use.	All routes		

RCR = Risk characterisation ratio

For all PROC Exposure Assessment Method : Qualitative approach used to conclude safe use.

8.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure ScenarioRisk management measures are based on qualitative risk characterisation.
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

9. ES9 : Professional use, end-products

9.1. Scenario description

Main User Groups	:	SU 22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Process category	:	PROC8a	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
		PROC11	Non industrial spraying
		PROC10	Roller application or brushing
		PROC8b	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
		PROC2	Use in closed, continuous process with occasional controlled exposure
		PROC13	Treatment of articles by dipping and pouring
		PROC4	Use in batch and other process (synthesis) where opportunity for exposure arises

9.2. Conditions of use affecting exposure

9.2.1 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities, <15 min, OC8 Indoor, CS110 without local exhaust ventilation, Gloves

Product characteristics

Concentration of the Substance in Mixture/Article		Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	:	liquid
Process Temperature	:	<= 40 °C
Remarks	:	Low vapour pressure

Frequency and duration of use

Exposure duration	:	< 15 min
-------------------	---	----------

Other operational conditions affecting workers exposure

Outdoor / Indoor	:	Indoor
------------------	---	--------

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

9.2.2 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities, PROC10 Roller application or brushing, PROC13 Treatment of articles by dipping and pouring, <1 hr., OC8 Indoor, CS110 without local exhaust ventilation, Gloves

AUGEO CLEAN MULTI

Revision Date 02.06.2020

Product characteristics

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

9.2.3 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities, <15 min, OC8 Indoor, CS110 without local exhaust ventilation, Without gloves

Product characteristics

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

9.2.4 Contributing scenario controlling worker exposure for: PROC11 Non industrial spraying, <1 hr., OC8 Indoor, Without gloves

Product characteristics

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

9.2.5 Contributing scenario controlling worker exposure for: PROC10 Roller application or brushing, < 8h, OC8 Indoor, Gloves

Product characteristics

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

9.2.6 Contributing scenario controlling worker exposure for: PROC8b Transfer of substance or preparation (charging/discharging) from/ to vessels/ large containers at dedicated facilities

Product characteristics

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 15 min
-------------------	------------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
Remarks	: Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

9.2.7 Contributing scenario controlling worker exposure for: PROC2 Use in closed, continuous process with occasional controlled exposure

Product characteristics

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 15 min
-------------------	------------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
Remarks	: Use in closed process

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

PRCO90063327
Version : 12.00 / GB (EN)

www.solvay.com



Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

9.2.8 Contributing scenario controlling worker exposure for: PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact), < 8h, OC8 Indoor, Without gloves

Product characteristics

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 8 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
------------------	----------

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

9.2.9 Contributing scenario controlling worker exposure for: PROC11 Non industrial spraying, <15 min, OC8 Indoor, CS110 without local exhaust ventilation, Gloves

Product characteristics

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 15 min
-------------------	------------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
------------------	----------

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of

a measure): 80 %)

9.2.10 Contributing scenario controlling worker exposure for: PROC10 Roller application or brushing, Kitchen cleaner

Product characteristics

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 4 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

9.2.11 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities, <1 hr., OC8 Indoor, CS110 without local exhaust ventilation, Without gloves

Product characteristics

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



9.2.12 Contributing scenario controlling worker exposure for: PROC11 Non industrial spraying, <1 hr., OC8 Indoor, Gloves**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

9.2.13 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities, OC9 Outdoor**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Outdoor

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

9.2.14 Contributing scenario controlling worker exposure for: PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 8 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Outdoor
Remarks	: Semi-closed system, With occasional controlled exposure.

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

9.2.15 Contributing scenario controlling worker exposure for: PROC11 Non industrial spraying, Gloves**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers percentage substance in the product up to 1 %.
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 1 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Outdoor
------------------	-----------

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

9.2.16 Contributing scenario controlling worker exposure for: PROC10 Roller application or brushing, OC9 Outdoor**Product characteristics**

PRCO90063327
Version : 12.00 / GB (EN)
www.solvay.com



AUGEO CLEAN MULTI

Revision Date 02.06.2020

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Outdoor

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.

Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

9.2.17 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities, OC9 Outdoor**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Outdoor

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.

Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

9.2.18 Contributing scenario controlling worker exposure for: PROC11 Non industrial spraying**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Outdoor

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.

Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

Respirator, APF 10 (Effectiveness (of a measure): 90 %)

9.2.19 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/discharging) from/ to vessels/ large containers at non-dedicated facilities, <1 hr., OC8 Indoor, CS109 with local exhaust ventilation**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

with local exhaust ventilation (Effectiveness (of a measure): 80 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.

Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

9.2.20 Contributing scenario controlling worker exposure for: PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Frequency and duration of use

Exposure duration : < 4 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Remarks : Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation (Effectiveness (of a measure): 80 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.

Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

9.2.21 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities, <15 min, OC8 Indoor, CS109 with local exhaust ventilation

Product characteristics

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation (Effectiveness (of a measure): 80 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.

Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

9.2.22 Contributing scenario controlling worker exposure for: PROC13 Treatment of articles by dipping and pouring, medical devices**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 4 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation (Effectiveness (of a measure): 80 %)

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training. (Effectiveness (of a measure): 80 %)

9.2.23 Contributing scenario controlling worker exposure for: PROC11 Non industrial spraying, <15 min, OC8 Indoor, CS110 without local exhaust ventilation, Without gloves**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers percentage substance in the product up to 1 %.

Physical Form (at time of use) : liquid

Process Temperature : <= 40 °C

Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .
with local exhaust ventilation

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

9.3. Exposure estimation and reference to its source

Human Health

Contributing Scenario	Specific conditions	Value type	Level of Exposure	RCR
For all PROC	Qualitative approach used to conclude safe use.	All routes		

RCR = Risk characterisation ratio

For all PROC Exposure Assessment Method : Qualitative approach used to conclude safe use.

9.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Risk management measures are based on qualitative risk characterisation.
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

10. ES10 : Use at industrial site, Use in Cleaning Agents**10.1. Scenario description**

Main User Groups	:	SU 3	Industrial uses: Uses of substances as such or in preparations at industrial sites
Process category	:	PROC1	Use in closed process, no likelihood of exposure
		PROC2	Use in closed, continuous process with occasional controlled exposure
		PROC3	Use in closed batch process (synthesis or formulation)
		PROC4	Use in batch and other process (synthesis) where opportunity for exposure arises
		PROC7	Industrial spraying
		PROC8a	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
		PROC8b	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
	PROC10	Roller application or brushing	
	PROC13	Treatment of articles by dipping and pouring	

10.2. Conditions of use affecting exposure**10.2.1 Contributing scenario controlling worker exposure for: PROC1 Use in closed process, no likelihood of exposure, PROC2 Use in closed, continuous process with occasional controlled exposure, PROC3 Use in closed batch process (synthesis or formulation)****Product characteristics**

Concentration of the Substance in Mixture/Article	:	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	:	liquid
Process Temperature	:	<= 40 °C
Remarks	:	Low vapour pressure

Frequency and duration of use

Exposure duration	:	< 8 h
-------------------	---	-------

Other operational conditions affecting workers exposure

Outdoor / Indoor	:	Indoor
Remarks	:	Use in closed process

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

10.2.2 Contributing scenario controlling worker exposure for: PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises, PROC8b Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities**Product characteristics**

PRCO90063327
Version : 12.00 / GB (EN)
www.solvay.com



AUGEO CLEAN MULTI

Revision Date 02.06.2020

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 8 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
Remarks	: Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

10.2.3 Contributing scenario controlling worker exposure for: PROC7 Industrial spraying**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration	: < 8 h
-------------------	---------

Other operational conditions affecting workers exposure

Outdoor / Indoor	: Indoor
------------------	----------

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)
Risk of aerosols formation, Wear respiratory protection.

10.2.4 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities, PROC10 Roller application or brushing, PROC13 Treatment of articles by dipping and pouring**Product characteristics**

PRCO90063327
Version : 12.00 / GB (EN)
www.solvay.com



Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.

Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

10.3. Exposure estimation and reference to its source**Human Health**

Contributing Scenario	Specific conditions	Value type	Level of Exposure	RCR
For all PROC	Qualitative approach used to conclude safe use.	All routes		

RCR = Risk characterisation ratio

For all PROC Exposure Assessment Method : Qualitative approach used to conclude safe use.

10.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Risk management measures are based on qualitative risk characterisation.

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

11. ES11 : Use at industrial site, Industrial use, Use as an intermediate**11.1. Scenario description**

Main User Groups	:	SU 3	Industrial uses: Uses of substances as such or in preparations at industrial sites
Process category	:	PROC1	Use in closed process, no likelihood of exposure
	:	PROC2	Use in closed, continuous process with occasional controlled exposure
	:	PROC3	Use in closed batch process (synthesis or formulation)
	:	PROC4	Use in batch and other process (synthesis) where opportunity for exposure arises
	:	PROC8b	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
	:	PROC15	Use as laboratory reagent
	:	PROC8a	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities

11.2. Conditions of use affecting exposure

11.2.1 Contributing scenario controlling worker exposure for: PROC1 Use in closed process, no likelihood of exposure, PROC2 Use in closed, continuous process with occasional controlled exposure, PROC3 Use in closed batch process (synthesis or formulation), General process exposures from enclosed processes, OC9 Outdoor

Product characteristics

Concentration of the Substance in Mixture/Article	:	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	:	liquid
Process Temperature	:	<= 40 °C
Remarks	:	Low vapour pressure

Frequency and duration of use

Exposure duration	:	< 1 h
-------------------	---	-------

Other operational conditions affecting workers exposure

Outdoor / Indoor	:	Outdoor
Remarks	:	Use in closed process

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

11.2.2 Contributing scenario controlling worker exposure for: PROC3 Use in closed batch process (synthesis or formulation), OC8 Indoor

Product characteristics

Concentration of the Substance in Mixture/Article	:	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	:	liquid
Process Temperature	:	<= 40 °C
Remarks	:	Low vapour pressure

Frequency and duration of use

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



AUGEO CLEAN MULTI

Revision Date 02.06.2020

Exposure duration : < 1 h

Other operational conditions affecting workers exposureOutdoor / Indoor : Indoor
Remarks : Use in closed process**Technical conditions and measures**

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposureAssumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.**Conditions and measures related to personal protection, hygiene and health evaluation**

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

11.2.3 Contributing scenario controlling worker exposure for: PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises, PROC8b Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities, <1 hr., OC8 Indoor**Product characteristics**Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure**Frequency and duration of use**

Exposure duration : < 1 h

Other operational conditions affecting workers exposureOutdoor / Indoor : Indoor
Remarks : Semi-closed system, With occasional controlled exposure.**Technical conditions and measures**

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposureAssumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.**Conditions and measures related to personal protection, hygiene and health evaluation**

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

11.2.4 Contributing scenario controlling worker exposure for: PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises, PROC8b Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities, OC9 Outdoor**Product characteristics**Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



AUGEO CLEAN MULTI

Revision Date 02.06.2020

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Outdoor

Remarks : Semi-closed system, With occasional controlled exposure.

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.

Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

11.2.5 Contributing scenario controlling worker exposure for: PROC8b Transfer of substance or preparation (charging/discharging) from/ to vessels/ large containers at dedicated facilities, <15 min, OC8 Indoor**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Remarks : Semi-closed system, With occasional controlled exposure.

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.

Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

11.2.6 Contributing scenario controlling worker exposure for: PROC8b Transfer of substance or preparation (charging/discharging) from/ to vessels/ large containers at dedicated facilities, <15 min, OC9 Outdoor**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 15 min

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Other operational conditions affecting workers exposure

Outdoor / Indoor : Outdoor
 Remarks : Semi-closed system, With occasional controlled exposure.

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

11.2.7 Contributing scenario controlling worker exposure for: PROC15 Use as laboratory reagent**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
 Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

11.2.8 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities, OC8 Indoor**Product characteristics**

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
 Physical Form (at time of use) : liquid
 Process Temperature : <= 40 °C
 Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

11.2.9 Contributing scenario controlling worker exposure for: PROC8a Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities, OC9 Outdoor**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration : < 1 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Outdoor

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants), Use suitable eye protection.

11.2.10 Contributing scenario controlling worker exposure for: PROC1 Use in closed process, no likelihood of exposure, PROC2 Use in closed, continuous process with occasional controlled exposure, Storage, CS56 with sample collection, OC8 Indoor**Product characteristics**

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use)	: liquid
Process Temperature	: <= 40 °C
Remarks	: Low vapour pressure

Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor
Remarks : Use in closed process

Technical conditions and measures

Provide a basic standard of general ventilation (1 to 3 air changes per hour) .

Organisational measures to prevent /limit releases, dispersion and exposure

PRCO90063327

Version : 12.00 / GB (EN)

www.solvay.com



Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

11.2.11 Contributing scenario controlling worker exposure for: PROC1 Use in closed process, no likelihood of exposure, PROC2 Use in closed, continuous process with occasional controlled exposure, Storage, CS56 with sample collection, OC9 Outdoor

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : liquid
Process Temperature : <= 40 °C
Remarks : Low vapour pressure

Frequency and duration of use

Exposure duration : < 8 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Outdoor
Remarks : Use in closed process

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented.
Avoid splashing.

Conditions and measures related to personal protection, hygiene and health evaluation

Avoid direct eye contact with product, also via contamination on hands., General measures (eye irritants)

11.3. Exposure estimation and reference to its source

Human Health

Contributing Scenario	Specific conditions	Value type	Level of Exposure	RCR
For all PROC	Qualitative approach used to conclude safe use.	All routes		

RCR = Risk characterisation ratio

For all PROC Exposure Assessment Method : Qualitative approach used to conclude safe use.

11.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Risk management measures are based on qualitative risk characterisation.
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

12. ES12 : Consumers end-use of washing and cleaning products (IFRA GES 6)

12.1. Scenario description

Main User Groups	:	SU 21	Consumer uses: Private households (= general public = consumers)
Product category	:	PC35	Washing and cleaning products (including solvent based products)

12.2. Conditions of use affecting exposure

12.2.1 Contributing scenario controlling consumer exposure for: **PC35 Washing and cleaning products (including solvent based products)** ,

According to REACH regulation, there is no limit of concentration to use the product in all usages described in the exposure scenarios present in this document, once the safety assessment was done as a mandatory request for the Chemical Safety Report.

Conditions and measures related to protection of consumer (e.g. behavioural advice, personal protection and hygiene)

Consumer Measures : Assumes a good basic standard of occupational hygiene is implemented., General measures (eye irritants), Avoid direct eye contact with product, also via contamination on hands., Avoid splashing.

12.3. Exposure estimation and reference to its source

13. ES13 : Consumer end-use of air care products (IFRA GES 7)

13.1. Scenario description

Main User Groups	:	SU 21	Consumer uses: Private households (= general public = consumers)
Product category	:	PC3	Air care products

13.2. Conditions of use affecting exposure

13.2.1 Contributing scenario controlling consumer exposure for: PC3 Air care products ,

According to REACH regulation, there is no limit of concentration to use the product in all usages described in the exposure scenarios present in this document, once the safety assessment was done as a mandatory request for the Chemical Safety Report.

Conditions and measures related to protection of consumer (e.g. behavioural advice, personal protection and hygiene)

Consumer Measures : Assumes a good basic standard of occupational hygiene is implemented., General measures (eye irritants), Avoid direct eye contact with product, also via contamination on hands., Avoid splashing.

13.3. Exposure estimation and reference to its source

14. ES14 : Consumers end-use polishes and wax blends (IFRA GES 9)

14.1. Scenario description

Main User Groups	:	SU 21	Consumer uses: Private households (= general public = consumers)
Product category	:	PC31	Polishes and wax blends

14.2. Conditions of use affecting exposure

14.2.1 Contributing scenario controlling consumer exposure for: PC31 Polishes and wax blends ,

According to REACH regulation, there is no limit of concentration to use the product in all usages described in the exposure scenarios present in this document, once the safety assessment was done as a mandatory request for the Chemical Safety Report.

14.3. Exposure estimation and reference to its source

15. ES15 : Consumer use, End use of cosmetic products

15.1. Scenario description

Main User Groups	:	SU 21	Consumer uses: Private households (= general public = consumers)
Product category	:	PC39 PC28	Cosmetics, personal care products Perfumes, fragrances
Further information	:		In accordance to the Article 14 (5b) of the REACH Regulation (EC) No 1907/2006, exposure estimation and risk characterisation for human health does not need to be performed for end uses in cosmetic products within the scope of Directive 76/768/EEC., Covered by the Cosmetic Regulation (European Regulation (EC) N°1223/2009).

15.2. Conditions of use affecting exposure
