

Safety Data Sheet dated 8/31/2018, version 2

1. IDENTIFICATION

Product identifier

Mixture identification:

Trade name: DIESTONE DS88

Other means of identification:

SDS code: P28312

Recommended use of the chemical and restrictions on use

Recommended use:

Solvent

Cleaner

Industrial uses

Restrictions on use:

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company:

Dysol Inc. - 791 Westport Parkway - Fort Worth, TX 76177 / Phone: 1-817-335-1826 /

csr-na@socomore.com/ Fax Number: 817-335-2405

Distributor: SOCOMORE S.A.S. - Zone Industrielle du Prat - CS 23707 - 56037 VANNES

CEDEX - France - Tel: +33 (0)2 97 43 76 83 - Fax: +33 (0)2 97 54 20 26

Distributor: Socomore Ltd - 5, Coe Avenue - Loughborough - Leicestershire - LE11 4SE - UK - Tel: +44 1509 262040 - Fax: +44 1509 262046

Distributor: Socomore Iberia - Calle Diputacio, 260 - 08007 Barcelona - Espana - Tel: +34 917 693 962 - Fax: +34 902 908 966

Distributor: MagChem Inc. 1271, rue Ampere, suite 101, Boucherville, QC, J4B 5Z5 Canada - Tel: 1-450 641 8500 - Fax: 1-450 655 1717

Distributor: Socomore GmbH - c/o MAZARS GmbH - Theodor-Stern-Kai 1 - 60596 Frankfurt am Main - Deutschland - Tel: +49 (0)89 20 70 28 83 - Fax: +49 (0) 89 88 91 98 16

Distributor: Socomore Trading Shangai - 355 East Kang Qiao Road - Kang Qiao Industrial

Zone - Pudong - 201315 Shangai - Tel: 862158131133 - Fax: 862158131933

Dystrybutor : SOCOMORE SPzoo - UI. Piekna 18, 00-549 Warszawa Polska - Tel : +48 608 454 114 - Fax : +48 (22) 621 61 09

Competent person responsible for the safety data sheet:

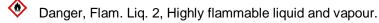
techdirsocomore@socomore.com

Emergency phone number

CHEMTEL: 1-800-255-3924 (USA) / CANUTEC: 1-613-996-6666 (CANADA)

2. HAZARD(S) IDENTIFICATION

Classification of the chemical



Warning, Skin Irrit. 2, Causes skin irritation.

Danger, Eye Dam. 1, Causes serious eye damage.

Danger, STOT SE 1, Causes damage to organs.



Label elements Hazard pictograms:



Danger

Hazard statements:

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H370 Causes damage to organs.

Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash ... Thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water/...

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor/...

P310 Immediately call a POISON CENTER/doctor/...

P321 Specific treatment (see ... On this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P370+P378 In case of fire: Use ... to extinguish.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

None

Hazards not otherwise classified identified during the classification process:

None

Ingredient(s) with unknown acute toxicity:

None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

N.A.

Mixtures

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:



>= 30% - < 40% 2-methoxy-1-methylethyl acetate

REACH No.: 01-2119475791-29, Index number: 607-195-00-7, CAS: 108-65-6, EC: 203-603-9

B.6/3 Flam. Liq. 3 H226

>= 20% - < 25% ethanol; ethyl alcohol

REACH No.: 01-2119457610-43, Index number: 603-002-00-5, CAS: 64-17-5, EC: 200-578-6

- A.3/2A Eye Irrit. 2A H319
- A.8/3 STOT SE 3 H335
- B.6/2 Flam. Liq. 2 H225
- A.8/3 STOT SE 3 H336
- >= 15% < 20% 1-methoxy-2-propanol; monopropylene glycol methyl ether REACH No.: 01-2119457435-35, Index number: 603-064-00-3, CAS: 107-98-2, EC: 203-539-1
 - B.6/3 Flam. Liq. 3 H226
 - 4.8/3 STOT SE 3 H336
- >= 12.5% < 15% 2-METHYLPROPAN-1-OL; ISO-BUTANOL

REACH No.: 01-2119484609-23, Index number: 603-108-00-1, CAS: 78-83-1, EC: 201-148-0

- B.6/3 Flam. Liq. 3 H226
- A.8/3 STOT SE 3 H335
- 4.2/2 Skin Irrit. 2 H315
- A.3/1 Eye Dam. 1 H318
- ♠ A.8/3 STOT SE 3 H336
- >= 7% < 10% 1-(3-methoxypropoxy)propyl acetate

CAS: 88917-22-0, EC: 618-219-0

4.1/4/Oral Acute Tox. 4 H302

B.6/4 Flam. Liq. 4 H227

- 4.2/2 Skin Irrit. 2 H315
- 4.3/2A Eye Irrit. 2A H319
- A.8/3 STOT SE 3 H335



>= 3% - < 5% methanol

Index number: 603-001-00-X, CAS: 67-56-1, EC: 200-659-6

B.6/2 Flam. Liq. 2 H225

♦ A.8/1 STOT SE 1 H370

A.1/3/Oral Acute Tox. 3 H301

A.1/3/Dermal Acute Tox. 3 H311

A.1/3/Inhal Acute Tox. 3 H331

4. FIRST-AID MEASURES

Description of necessary measures

In case of skin contact:

Immediately take off all contaminated clothing.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting. Obtain a medical examination.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

None

Indication of immediate medical attention and special treatment needed

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

No particular treatment.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

In case of fire: Use ... to extinguish.

Unsuitable extinguishing media:

None in particular.

Specific hazards arising from the chemical

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products:

None

Explosive properties: N.A. Oxidizing properties: N.A.

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.



6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Remove persons to safety.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

Methods and materials for containment and cleaning up

Wash with plenty of water.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Do not use on extensive surface areas in premises where there are occupants.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Always keep in a well ventilated place.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Avoid accumulating electrostatic charge.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

Safety electric system.

Storage temperature:

Store at ambient temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

- OEL Type: ACGIH TWA(8h): 150 ppm STEL: 100 ppm
- OEL Type: National TWA(8h): 275 mg/m3, 50 ppm STEL: 550 mg/m3, 100 ppm Notes: France VLEC
- OEL Type: National TWA(8h): 270 mg/m3, 50 ppm Notes: GERMANY
- OEL Type: National TWA(8h): 274 mg/m3, 50 ppm STEL: 548 mg/m3, 100 ppm Notes: UK (WELs)
- OEL Type: National TWA: 260 mg/m3 STEL: 520 mg/m3 Notes: POLAND
- OEL Type: EU TWA(8h): 275 mg/m3, 50 ppm STEL: 550 mg/m3, 100 ppm -

Notes: Skin

- OEL Type: AIHA
- TWA: 50 ppm



ethanol; ethyl alcohol - CAS: 64-17-5

- OEL Type: EU - TWA(8h): 960 mg/m3, 500 ppm - Notes: GERMANY - AGW (BAuA - TRGS 900, 21/06/2010)

- OEL Type: EU - TWA(8h): 1900 mg/m3, 1000 ppm - STEL: 9500 mg/m3, 5000 ppm - Notes: FRANCE (INRS - ED984 : 2012) - TMP N2 84

- OEL Type: ACGIH - STEL: 1000 ppm - Notes: A3 - URT irr

- OEL Type: National - TWA: 1000 ppm - Notes: UK

- OEL Type: National - TWA: 1907 mg/m3, 1000 ppm - Notes: Belgique

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

- OEL Type: National - TWA(8h): 188 mg/m3, 50 ppm - STEL: 375 mg/m3, 100 ppm - Notes: France VLEC - INRS TMP N284

- OEL Type: National - TWA: 370 mg/m3, 100 ppm - Notes: GERMAN

- OEL Type: National - TWA: 180 mg/m3 - STEL: 360 mg/m3 - Notes: POLAND

- OEL Type: EU - TWA(8h): 375 mg/m3, 100 ppm - STEL: 563 mg/m3, 150 ppm - Notes: Skin

- OEL Type: ACGIH - TWA(8h): 50 ppm - STEL: 100 ppm - Notes: A4 - Eye and URT irr

2-METHYLPROPAN-1-OL; ISO-BUTANOL - CAS: 78-83-1

- OEL Type: ACGIH - TWA(8h): 150 mg/m3, 50 ppm - Notes: Skin and eye irr

- OEL Type: National - TWA: 150 mg/m3, 50 ppm - Notes: INRS, indicative limit

- OEL Type: National - TWA: 50 ppm - STEL: 75 ppm - Notes: DOW IHG

- OEL Type: National - TWA: 154 mg/m3, 50 ppm - STEL: 231 mg/m3, 75 ppm - Notes: WEL, Great Britain

- OEL Type: National - TWA: 310 mg/m3, 100 ppm - Notes: TRGS 900, AGW (Germany)

methanol - CAS: 67-56-1

- OEL Type: National - TWA(8h): 260 mg/m3, 200 ppm - STEL: 1300 mg/m3, 1000 ppm - Notes: France VLEC

- OEL Type: EU - TWA(8h): 260 mg/m3, 200 ppm - Notes: Skin

- OEL Type: ACGIH - TWA(8h): 200 ppm - STEL: 250 ppm - Notes: Skin, BEI - Headache, eye dam, dizziness, nausea

DNEL Exposure Limit Values

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

Worker Industry: 153.5 mg/kg bw/day - Consumer: 54.8 mg/kg bw/day - Exposure:

Human Dermal - Frequency: Long Term, systemic effects

Worker Industry: 275 mg/m3 - Consumer: 33 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Consumer: 1.67 mg/kg bw/day - Exposure: Human Oral - Frequency: Long Term, systemic effects

ethanol; ethyl alcohol - CAS: 64-17-5

Worker Industry: 1900 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects - Notes: 1000ppm

Worker Industry: 950 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Notes: 500ppm

Worker Industry: 343 mg/kg bw/day - Exposure: Human Dermal - Frequency: Long Term, systemic effects

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

Worker Industry: 369 mg/m3 - Consumer: 43.9 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 50.6 mg/kg bw/day - Consumer: 18.1 mg/kg bw/day - Exposure:

Human Dermal - Frequency: Long Term, systemic effects

Consumer: 3.3 mg/kg bw/day - Exposure: Human Oral - Frequency: Long Term, systemic effects

Worker Industry: 553.5 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term (acute)



2-METHYLPROPAN-1-OL; ISO-BUTANOL - CAS: 78-83-1 Worker Industry: 310 mg/m3 - Consumer: 55 mg/m3 - Exposure: Human Inhalation -Frequency: Long Term, systemic effects Worker Industry: 310 mg/m3 - Consumer: 55 mg/m3 - Exposure: Human Inhalation -Frequency: Long Term, local effects Consumer: 25 mg/kg - Exposure: Human Oral methanol - CAS: 67-56-1 Worker Industry: 40 mg/kg bw/day - Consumer: 8 mg/kg bw/day - Exposure: Human Dermal - Frequency: Short Term, systemic effects Worker Industry: 40 mg/kg bw/day - Consumer: 8 mg/kg bw/day - Exposure: Human Dermal - Frequency: Long Term, systemic effects Worker Industry: 260 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, systemic effects Worker Industry: 260 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects Worker Industry: 260 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects PNEC Exposure Limit Values 2-methoxy-1-methylethyl acetate - CAS: 108-65-6 Target: Fresh Water - Value: 0.635 mg/l Target: Marine water - Value: 0.0635 mg/l Target: Microorganisms in sewage treatments - Value: 100 mg/l Target: Freshwater sediments - Value: 3.29 mg/kg Target: Marine water sediments - Value: 0.329 mg/kg Target: Soil (agricultural) - Value: 0.29 mg/kg Target: PNEC intermittent - Value: 6.35 mg/l ethanol; ethyl alcohol - CAS: 64-17-5 Target: Fresh Water - Value: 0.96 mg/l Target: Marine water - Value: 0.79 mg/l Target: Freshwater sediments - Value: 3.6 mg/kg dw Target: Marine water sediments - Value: 2.9 mg/kg dw Target: Soil (agricultural) - Value: 0.63 mg/kg dw Target: PNEC Oral (foodstuff) - Value: 0.72 g/kg 1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2 Target: Fresh Water - Value: 10 mg/l Target: Freshwater sediments - Value: 41.6 mg/kg Target: Marine water sediments - Value: 4.17 mg/kg Target: Soil (agricultural) - Value: 2.47 mg/kg Target: Microorganisms in sewage treatments - Value: 100 mg/l Target: Marine water - Value: 1 mg/l Target: Water (intermittent discharge) - Value: 100 mg/l 2-METHYLPROPAN-1-OL; ISO-BUTANOL - CAS: 78-83-1 Target: Fresh Water - Value: 0.4 mg/l Target: Marine water - Value: 0.04 mg/l Target: Marine water sediments - Value: 1.52 mg/kg

Target: Freshwater sediments - Value: 0.152 mg/kg

Target: Soil (agricultural) - Value: 0.0699 mg/kg Target: Water (intermittent discharge) - Value: 11 mg/l

Target: Microorganisms in sewage treatments - Value: 10 mg/l



methanol - CAS: 67-56-1

Target: Fresh Water - Value: 20.8 mg/l Target: Marine water - Value: 2.08 mg/l

Target: Freshwater sediments - Value: 77 mg/kg Target: Marine water sediments - Value: 7.7 mg/kg Target: Soil (agricultural) - Value: 3.18 mg/kg

Target: Microorganisms in sewage treatments - Value: 100 mg/l

Appropriate engineering controls:

None

Individual protection measures

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Use adequate protective respiratory equipment.

Thermal Hazards:

None

9. PHYSICAL AND CHEMICAL PROPERTIES

Properties	Value	Method:	Notes
Appearance and colour:	Clear		
	Colourless		
	liquid		
Odour:	N.A.		
Odour threshold:	N.A.		
pH:	Not Relevant		
Melting point / freezing	Not Relevant		
point:			
Initial boiling point and	N.A.		
boiling range:			
Flash Point (°F):	66.2°F		
Flash point (°C):	19°C		
Evaporation rate:	N.A.		
Solid/gas flammability:	N.A.		
Upper/lower flammability	N.A.		
or explosive limits:			
Vapour pressure:	Not Relevant		
Vapour density:	N.A.		
Relative density:	0.894		
Solubility in water:	N.A.		
Solubility in oil:	N.A.		
Partition coefficient	N.A.		
(n-octanol/water):			
Auto-ignition temperature:	N.A.		
Decomposition	Not Relevant		
temperature:			
Viscosity:	N.A.		



Explosive properties:	N.A.	
Oxidizing properties:	N.A.	

9.2. Other information

Properties	Value	Method:	Notes
Miscibility:	N.A.		
Fat Solubility:	N.A.		
Conductivity:	N.A.		
Substance Groups	N.A.		
relevant properties			

10. STABILITY AND REACTIVITY

Reactivity

It may generate dangerous reactions (See subsections below)

Chemical stability

It may generate dangerous reactions (See subsections below)

Possibility of hazardous reactions

None

Conditions to avoid

Avoid accumulating electrostatic charge.

Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

Hazardous decomposition products

None.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Toxicological information of the product:

N.Ā.

Toxicological information of the main substances found in the product:

2-methoxy-1-methylethyl acetate - CAS: 108-65-6

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat > 10.8 mg/l

Test: LC50 - Route: Skin - Species: Rabbit > 5000 mg/kg

ethanol; ethyl alcohol - CAS: 64-17-5

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat > 50 mg/m3

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2 a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat > 5 mg/l - Duration: 4h



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2-METHYLPROPAN-1-OL; ISO-BUTANOL - CAS: 78-83-1
            a) acute toxicity:
                  Test: LD50 - Route: Oral - Species: Rat > 2830 mg/kg
                  Test: LD50 - Route: Oral - Species: Rat < 3350 mg/kg
                  Test: LC50 - Route: Inhalation - Species: Rat > 18.18 mg/l
                  Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg
                  Test: LD50 - Route: Skin - Species: Rabbit < 2460 mg/kg
                  Test: LC0 - Route: Inhalation - Species: Rat = 18.2 mg/m3 - Duration: 6 hours
            h) STOT-single exposure:
                  Route: Inhalation 10 ppm
            i) STOT-repeated exposure:
                  Test: NOAEL - Route: Inhalation - Species: Rat = 7.5 mg/l - Notes: 2500 ppm
            1-(3-methoxypropoxy)propyl acetate - CAS: 88917-22-0
            a) acute toxicity:
                  Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg
                  Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg
            methanol - CAS: 67-56-1
            a) acute toxicity:
                  Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg
                  Test: LC50 - Route: Inhalation - Species: Rat = 128.2 mg/l - Duration: 4h
                  Test: LC50 - Route: Inhalation - Species: Rat = 87.6 mg/l
                  Test: LD50 - Route: Skin - Species: Rabbit = 17100 mg/kg
                  Test: LD0 - Route: Oral - Species: Human = 428 mg/kg
      Substance(s) listed on the NTP report on Carcinogens:
            None.
      Substance(s) listed on the IARC Monographs:
            None.
      Substance(s) listed as OSHA Carcinogen(s):
            None.
      Substance(s) listed as NIOSH Carcinogen(s):
            None.
12. ECOLOGICAL INFORMATION
      Ecotoxicity
            Adopt good working practices, so that the product is not released into the environment.
            2-methoxy-1-methylethyl acetate - CAS: 108-65-6
            a) Aquatic acute toxicity:
                  Endpoint: EC50 - Species: Algae > 1000 mg/l
                  Endpoint: LC50 - Species: Fish = 134 mg/l
                  Endpoint: EC50 - Species: Daphnia = 408 mg/l
            b) Aquatic chronic toxicity:
                  Endpoint: NOEC - Species: Fish = 47.5 mg/l - Duration h: 336 - Notes: Oryzias latipes
                  Endpoint: NOEC - Species: Daphnia > 100 mg/l - Duration h: 504
            ethanol; ethyl alcohol - CAS: 64-17-5
            a) Aquatic acute toxicity:
                  Endpoint: LC50 - Species: Fish > 100 mg/l - Notes: Leuciscus idus
                  Endpoint: EC50 - Species: Algae = 275 mg/l - Duration h: 72 - Notes: Chlorella vulgaris
                  Endpoint: NOEC - Species: Algae = 3240 mg/l - Duration h: 120 - Notes: Skeletonema
                  costatum
                  Endpoint: NOEC - Species: Daphnia = 9.6 mg/l - Duration h: 240 - Notes: Ceriodaphnia
                  Endpoint: EC50 - Species: Daphnia = 857 mg/l - Duration h: 48 - Notes: Artemia salina
                  nauplii
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1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2
      a) Aquatic acute toxicity:
            Endpoint: LC50 - Species: Fish > 1000 mg/l - Duration h: 96 - Notes: Leuciscus idus,
            LC/EC/IC50
            Endpoint: LC50 - Species: Daphnia > 1000 mg/l - Duration h: 48 - Notes: LC/EC/IC50
            Endpoint: LC50 - Species: Algae > 1000 mg/l - Notes: LC/EC/IC50
            Endpoint: LC50 - Species: Fish < 4600 mg/l - Duration h: 96 - Notes: Leuciscus idus
      2-METHYLPROPAN-1-OL; ISO-BUTANOL - CAS: 78-83-1
      a) Aquatic acute toxicity:
            Endpoint: LC50 - Species: Fish = 1.430 mg/l - Duration h: 96 - Notes: Pimephales
            promelas
            Endpoint: EC50 - Species: Algae = 632 mg/l - Duration h: 72 - Notes:
            Pseudokirchneriella subcapitata
            Endpoint: NOEC - Species: Algae = 53 mg/l - Duration h: 72 - Notes:
            Pseudokirchneriella subcapitata
            Endpoint: EC50 - Species: Daphnia = 1.100 mg/l - Duration h: 48
            Endpoint: EC0 - Species: Algae = 350 mg/l
            Endpoint: EC0 - Species: Fish = 280 mg/l - Notes: Pseudomonas putida
      b) Aquatic chronic toxicity:
            Endpoint: NOEC - Species: Daphnia = 20 mg/l - Duration h: 504
      f) Effects in sewage plants (activated sludge):
            Endpoint: IC50 - Species: Fish > 1000 mg/l - Duration h: 16
      1-(3-methoxypropoxy)propyl acetate - CAS: 88917-22-0
      a) Aquatic acute toxicity:
            Endpoint: LC50 - Species: Fish > 100 mg/l - Duration h: 96
            Endpoint: LC50 - Species: Daphnia > 2701 mg/l - Duration h: 48
            Endpoint: LC50 - Species: Algae > 1000 mg/l - Duration h: 72
      methanol - CAS: 67-56-1
      a) Aquatic acute toxicity:
            Endpoint: EC50 - Species: Fish = 15400 mg/l - Duration h: 96
            Endpoint: NOEC - Species: Fish = 7900 mg/l - Duration h: 200
            Endpoint: EC50 - Species: Daphnia > 10000 mg/l - Duration h: 48
            Endpoint: EC50 - Species: Algae = 22000 mg/l - Duration h: 96
            Endpoint: LC50 - Species: Fish > 100 mg/l - Duration h: 96 - Notes: Carpe
Persistence and degradability
      ethanol; ethyl alcohol - CAS: 64-17-5
            Biodegradability: Readily biodegradable - Test: N.A. - Duration: N.A. - %: N.A. - Notes:
      1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2
            Biodegradability: Readily biodegradable - Test: N.A. - Duration: N.A. - %: N.A. - Notes:
            N.A.
      2-METHYLPROPAN-1-OL; ISO-BUTANOL - CAS: 78-83-1
            Biodegradability: Biodegradability rate - Test: N.A. - Duration: 28 days - %: 70-80 -
            Notes: N.A.
            Biodegradability: Biodegradation in water - Test: OECD 301C - Duration: 14 days - %:
            90 - Notes: N.A.
            Biodegradability: Photodegradation (in air) - overall half-life time - Test: Degradation by
            OH radicals: Direct photolysis - Duration: 56 hours - %: N.A. - Notes: N.A.
Bioaccumulative potential
      ethanol; ethyl alcohol - CAS: 64-17-5
            Log Pow - Test: N.A. -0.35 - Duration: N.A. - Notes: N.A.
      1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2
            Log Pow - Test: N.A. 0.37 - Duration: N.A. - Notes: N.A.
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2-METHYLPROPAN-1-OL; ISO-BUTANOL - CAS: 78-83-1

Almost non bioaccumulative - Test: N.A. N.A. - Duration: N.A. - Notes: N.A.

Log Kow - Test: OECD 107 0.79 - Duration: N.A. - Notes: N.A.

Mobility in soil

2-METHYLPROPAN-1-OL; ISO-BUTANOL - CAS: 78-83-1

Distribution between environmental compartments - Test: Mackay, level I 67.92 % -

Duration: N.A. - Notes: Water

Distribution between environmental compartments - Test: Mackay, level I 32.02 % -

Duration: N.A. - Notes: Air

Distribution between environmental compartments - Test: Mackay, level I 0.03 % -

Duration: N.A. - Notes: Soil

Distribution between environmental compartments - Test: Mackay, level I 0.03 % -

Duration: N.A. - Notes: Sediment

Surface tension - Test: N.A. 69.7 mN/m - Duration: N.A. - Notes: 20°C

Volality (H: Henry's Law Constant) - Test: N.A. 1.01E+00 Pa.m3/mol - Duration: N.A. -

Notes: 25°C (calculated)

Log Koc - Test: N.A. 0.31 - Duration: N.A. - Notes: (calculated)

Other adverse effects

No harmful effects expected.

13. DISPOSAL CONSIDERATIONS

Waste treatment and disposal methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

14. TRANSPORT INFORMATION



UN number

ADR-UN Number: 1993
DOT number: UN1993
IATA-UN Number: 1993
IMDG-UN Number: 1993

UN proper shipping name

ADR-Shipping Name: FLAMMABLE LIQUID, N.O.S. (2-methoxy-1-methylethyl

acetate, ethanol; ethyl alcohol)

DOT-Shipping Name: FLAMMABLE LIQUID, N.O.S. (2-methoxy-1-methylethyl

acetate, ethanol; ethyl alcohol)

IATA-Shipping Name: FLAMMABLE LIQUID, N.O.S. (2-methoxy-1-methylethyl

acetate, ethanol; ethyl alcohol)

IMDG-Shipping Name: FLAMMABLE LIQUID, N.O.S. (2-methoxy-1-methylethyl

acetate, ethanol; ethyl alcohol)

Transport hazard class(es)

ADR-Class: 3
DOT Hazard Class: 3
ADR - Hazard identification number: 33
IATA-Class: 3
IATA-Label: 3

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IMDG-Class: 3

Packing group

ADR-Packing Group: II
DOT Packing group: II
IATA-Packing group: II
IMDG-Packing group: II

Environmental hazards

ADR-Enviromental Pollutant: No IMDG-Marine pollutant: No

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

N.A.

Special precautions

DOT Special provisions: IB2, T7, TP1, TP8, TP28

DOT Labels: 3
ADR-Subsidiary risks: -

ADR-S.P.: 274 601 640C

ADR-Transport category (Tunnel restriction code): 2 (D/E)

IATA-Passenger Aircraft: 353
IATA-Subsidiary risks: IATA-Cargo Aircraft: 364
IATA-S.P.: A3
IATA-ERG: 3H

IMDG-EmS: F-E , S-E

IMDG-Subsidiary risks: -

IMDG-Stowage and handling: Category B

IMDG-Segregation: -

Q.L.: 1L Q.E.: E2

15. REGULATORY INFORMATION

USA - Federal regulations

TSCA - Toxic Substances Control Act

List of substances included in the TSCA inventory: 2-methoxy-1-methylethyl acetate, ethanol; ethyl alcohol, 1-methoxy-2-propanol; monopropylene glycol methyl ether, 2-METHYLPROPAN-1-OL; ISO-BUTANOL, methanol.

List of substances not included in the TSCA inventory: 1-(3-methoxypropoxy)propyl acetate.

TSCA listed substances:

2-methoxy-1-methylethyl acetate is listed in TSCA Section 8a - PAIR, Section 8b, Section 8d HSDR

ethanol; ethyl alcohol is listed in TSCA Section 8b

1-methoxy-2-propanol; monopropylene glycol methyl ether is listed in TSCA Section 8b, Section 8d HSDR

2-METHYLPROPAN-1-OL; ISO-BUTANOL is listed in TSCA Section 8b, Section 8d HSDR

methanol is listed in TSCA Section 8b.

SARA - Superfund Amendments and Reauthorization Act

Section 302 - Extremely Hazardous Substances: no substances listed.

Section 304 - Hazardous substances: 2-METHYLPROPAN-1-OL; ISO-BUTANOL, methanol.

Section 313 - Toxic chemical list: methanol.



CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

Substance(s) listed under CERCLA: 2-METHYLPROPAN-1-OL; ISO-BUTANOL -

Reportable quantity: 5000 pounds

methanol - Reportable quantity: 5000 pounds.

Reportable quantity for mixture: 34280.8562 pounds.

CAA - Clean Air Act

CAA listed substances:

ethanol; ethyl alcohol is listed in CAA Section 111

1-methoxy-2-propanol; monopropylene glycol methyl ether is listed in CAA Section 112(b) - HON

2-METHYLPROPAN-1-OL; ISO-BUTANOL is listed in CAA Section 111

methanol is listed in CAA Section 111, Section 112(b) - HAP, Section 112(b) - HON.

CWA - Clean Water Act

CWA listed substances:

ethanol; ethyl alcohol is listed in CWA Section 304

methanol is listed in CWA Section 304.

USA - State specific regulations

California Proposition 65

Substance(s) listed under California Proposition 65:

methanol - Listed as reproductive toxicant.

Massachusetts Right to know

Substance(s) listed under Massachusetts Right to know:

ethanol; ethyl alcohol

1-methoxy-2-propanol; monopropylene glycol methyl ether

2-METHYLPROPAN-1-OL; ISO-BUTANOL

methanol.

New Jersey Right to know

Substance(s) listed under New Jersey Right to know:

ethanol; ethyl alcohol

1-methoxy-2-propanol; monopropylene glycol methyl ether

2-METHYLPROPAN-1-OL; ISO-BUTANOL

methanol.

Pennsylvania Right to know

Substance(s) listed under Pennsylvania Right to know:

ethanol; ethyl alcohol

1-methoxy-2-propanol; monopropylene glycol methyl ether

2-METHYLPROPAN-1-OL; ISO-BUTANOL.

The following substance(s) in this product has/have an identification by CAS number either in countries not affected by the REACH regulation or in regulations not yet updated to reflect the new naming convention for hydrocarbon solvents:

HYDROCARBONS, C9-C11, N-ALKANES, ISOALKANES, CYCLICS, <2%

AROMATICS (CAS: 64742-48-9)

16. OTHER INFORMATION

Full text of phrases referred to in Section 3:

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H225 Highly flammable liquid and vapour.

H336 May cause drowsiness or dizziness.

H315 Causes skin irritation.

H318 Causes serious eye damage.



H302 Harmful if swallowed. H227 Combustible liquid.

H370 Causes damage to organs.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H331 Toxic if inhaled.

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Disclaimer:

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. The information relates only to the specific material and may not be valid for such material used in combination with any other material or in any process.

This Safety Data Sheet cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of

Dangerous Goods by Road.

CAS: Chemical Abstracts Service (division of the American Chemical

Society).

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.
GHS: Globally Harmonized System of Classification and Labeling of

Chemicals.

HMIS: Hazardous Materials Identification System IARC: International Agency for Research on Cancer IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport

Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization"

(ICAO).

IMDG: International Maritime Code for Dangerous Goods. INCI: International Nomenclature of Cosmetic Ingredients.

KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Administration

PNEC: Predicted No Effect Concentration.

RID: Regulation Concerning the International Transport of Dangerous Goods

by Rail.

STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWA: Time-weighted average