

Effective Date: June 2021  
REF NO.:AK21/0112/IPA

# Iso Propyl Alcohol / IPA

## 1. Chemical Product

### Product Identification:

ISO PROPYL ALCOHOL

### Chemicals Name:

2-PROPANOL

### Other Trade Name:

2-PROPANOL, AIKSOLV PRINTING ALCOHOL, ALCOHOL ISOPROPYL, C3018, CHEMICAL-95885, CHEMOIL IPA, DK0163 ISOPROPYL ALCOHOL, FILM CLEANER, FLX-IED-CE0100, FLX-IED-CE0600, GC Cleaner, INDUSTRIAL ALCOHOL, IPA, IPA ( TECHNICAL GRADE ), ISO PROPYL ALCOHOL, ISO PROPYL ALCOHOL (164020), ISOPROPANOL, ISOPROPYL ALCOHOL (MATERIAL NO:85246442), ISOPROPYL ALCOHOL (PC 801), ISOPROPYL ALCOHOL (R-321.15), ISOPROPYL ALCOHOL (S1114), KOKI S1000, NAILI ALCOHOL, OPERATING SUPPLIES CONSUMABLES - CLEANING (IPA), OPERATING SUPPLIES CONSUMABLES - ESD, PS-2094, PS-2431, RC 3018, RS-ISOPROPYL ALCOHOL, SOLVENT S-1000, SUPPLIES-98070, THINNER 99, ZIPA-U

## 2. Hazards Identification

### GHS Classification

Flammable liquids

Category 2

Eye irritation

Category 2A

Specific target organ toxicity - single exposure  
(Inhalation, Oral)

Category 3 (Narcotic effects)

### GHS Label Elements



**Signal words:** Danger

### Physical hazards:

Hazard classification:

H225 - Highly flammable liquid and vapour

### Health hazards:

Hazard classification:

H319 - Causes serious eye irritation

H336 - May cause drowsiness or dizziness

### Precautionary Statement(s):

#### Prevention

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

P240 - Ground/bond container and receiving equipment.

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

Effective Date: June 2021  
REF NO.:AK21/0112/IPA

## Iso Propyl Alcohol / IPA

P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 - Wash thoroughly after handling.  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P235 - Keep cool.

### Response

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P370 + P378 - In case of fire: Use suitable extinguishing media for extinction. (Refer to MSDS Section 5)  
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.  
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.

### Storage

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

### Disposal

P501 - Dispose of contents/container to an approved waste disposal plant.

## 3. Composition Information on Ingredients

**Substance / Mixture** : Substance

**Chemical nature** : Contains iso-propyl alcohol.

### Hazardous components

Chemical name	CAS-No.	Classification	Concentration [%]
Isopropyl alcohol	67-63-0	Flam. Liq.2; H225 Eye Irrit.2A; H319 STOT SE3; H336	≤ 100

## 4. First-Aid Measures

### General advice

Not expected to be a health hazard when used under normal conditions.

### If inhaled

Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.

### In case of skin contact

Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.

### In case of eye contact

Immediately flush eye(s) with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Transport to the nearest medical facility for additional treatment.

### If swallowed

Call emergency number for your location / facility. If swallowed, do not induce vomiting; transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.

### Most important symptoms and effects, both acute and delayed

If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. Eye irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blurred vision.

Effective Date: June 2021  
REF NO.:AK21/0112/IPA

## Iso Propyl Alcohol / IPA

### Protection of first-aiders

When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.

### Notes to physician

Potential for chemical pneumonitis. Call a doctor or poison control center for guidance.

## 5. Fire Fighting Measures

### Suitable extinguishing media

Alcohol-resistant foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

### Unsuitable extinguishing media

None

### Specific hazards during firefighting

The vapour is heavier than air, spreads along the ground and distant ignition is possible. Carbon monoxide may be evolved if incomplete combustion occurs.

### Specific extinguishing methods

Standard procedure for chemical fires. Clear fire area of all non-emergency personnel. Keep adjacent containers cool by spraying with water.

### Special protective equipment for firefighters

Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

## 6. Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

Observe the relevant local and international regulations. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Local authorities should be advised if significant spillages cannot be contained. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Vapour may form an explosive mixture with air.

Avoid contact with skin, eyes and clothing. Isolate hazard area and deny entry to unnecessary or unprotected personnel. Stay upwind and keep out of low areas.

### Environmental precautions

Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Ventilate contaminated area thoroughly. Monitor area with combustible gas indicator.

### Methods and materials for containment and cleaning up

For large liquid spills (> 1 drum), transfer by mechanical means such as vacuum truck to a salvage tank for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely. For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

### Additional advice

For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

## 7. Handling and Storage

### General Precautions

Avoid breathing of or direct contact with material. Only use in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment see

Effective Date: June 2021  
REF NO.:AK21/0112/IPA

## Iso Propyl Alcohol / IPA

Chapter 8 of this Safety Data Sheet. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material. Ensure that all local regulations regarding handling and storage facilities are followed.

### Advice on safe handling

Avoid contact with skin, eyes and clothing. Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Bulk storage tanks should be diked (bunded). Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment to reduce the risk. The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Do NOT use compressed air for filling, discharging, or handling operations.

### Avoidance of contact

Strong oxidising agents.

### Product Transfer

Refer to guidance under Handling section.

### Storage

#### Conditions for safe storage

The vapour is heavier than air. Beware of accumulation in pits and confined spaces. Refer to section 15 for any additional specific legislation covering the packaging and storage of this product.

### Packaging material

Suitable material: For containers, or container linings use mild steel, stainless steel.

Unsuitable material: Natural, butyl, neoprene or nitrile rubbers.

### Container Advice

Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.

### Specific use(s)

Not applicable.

Ensure that all local regulations regarding handling and storage facilities are followed. See additional references that provide safe handling practices: American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practices on Static Electricity). IEC/TS 60079-32-1: Electrostatic hazards, guidance.

## 8. Exposure Controls/Personal Protection

### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Isopropyl alcohol	67-63-0	PEL (long term)	400 ppm 983 mg/m <sup>3</sup>	SG PEL
Isopropyl alcohol		PEL (short term)	500 ppm 1,230 mg/m <sup>3</sup>	SG PEL
Isopropyl alcohol	67-63-0	TWA	200 ppm	ACGIH
Isopropyl alcohol		STEL	400 ppm	ACGIH
Isopropyl alcohol		TWA	400 ppm 980 mg/m <sup>3</sup>	OSHA Z-1

### Biological occupational exposure limits

No biological limit allocated.

Effective Date: June 2021  
REF NO.:AK21/0112/IPA

## Iso Propyl Alcohol / IPA

### **Monitoring Methods**

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory. Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods <http://www.cdc.gov/niosh/>  
Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods <http://www.osha.gov/>  
Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances <http://www.hse.gov.uk/>  
Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany <http://www.dguv.de/inhalt/index.jsp>  
L'Institut National de Recherche et de Sécurité, (INRS), France <http://www.inrs.fr/accueil>

### **Engineering measures**

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances.

Appropriate measures include:

Use sealed systems as far as possible.

Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits.

Local exhaust ventilation is recommended.

Firewater monitors and deluge systems are recommended.

Eye washes and showers for emergency use.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

General Information:

Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping. Define procedures for safe handling and maintenance of controls. Educate and train workers in the hazards and control measures relevant to normal activities associated with this product. Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation. Drain down system prior to equipment break-in or maintenance. Retain drain downs in sealed storage pending disposal or subsequent recycle.

### **Personal protective equipment**

#### **Protective measures**

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

#### **Respiratory protection**

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. If air-filtering respirators are suitable for conditions of use: Select a filter suitable for organic gases and vapours [Type A boiling point >65°C (149°F)].

#### **Hand protection**

Remarks : Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. Longer term protection: Butyl rubber. Nitrile rubber. Incidental contact/Splash protection: PVC or neoprene rubber gloves. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time may be acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

#### **Eye protection**

Wear goggles for use against liquids and gas. Wear full face shield if splashes are likely to occur.

#### **Skin and body protection**

Wear antistatic and flame retardant clothing if a local risk assessment deems it so. Skin protection is not required under normal conditions of use. For prolonged or repeated exposures use impervious clothing over parts of the body subject to exposure. If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to relevant

Effective Date: June 2021  
REF NO.:AK21/0112/IPA

## Iso Propyl Alcohol / IPA

Standard, and provide employee skin care programmes.

### Thermal hazards

Not applicable

### Hygiene measures

Wash hands before eating, drinking, smoking and using the toilet. Launder contaminated clothing before re-use.

### Environmental exposure controls

General advice : Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour. Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation. Information on accidental release measures are to be found in section 6.

## 9. Physical and Chemical Properties

<b>Appearance</b>	: Liquid
<b>Colour</b>	: Clear
<b>Odour</b>	: Characteristic
<b>Odour Threshold</b>	: Data not available
<b>pH</b>	: Not applicable
<b>Melting point/freezing point</b>	: -88 °C / -126 °F
<b>Boiling point/boiling range</b>	: 82 - 83 °C / 180 - 181 °F
<b>Flash point</b>	: 12 °C / 54 °F Method: Abel
<b>Evaporation rate</b>	: 1.5 Method: ASTM D 3539, nBuAc=1
<b>Flammability (solid, gas)</b>	: Not applicable
<b>Upper explosion limit</b>	: upper flammability limit 12 %(V)
<b>Lower explosion limit</b>	: Lower flammability limit 2 %(V)
<b>Vapour pressure</b>	: 4.1 kPa (20 °C / 68 °F)
<b>Relative vapour density</b>	: 2 (20 °C / 68 °F)
<b>Relative density</b>	: 0.78 - 0.79 (20 °C / 68 °F)
<b>Density</b>	: 785 - 786 kg/m <sup>3</sup> (20 °C / 68 °F) Method: ASTM D4052
<b>Solubility(ies)</b>	
<b>Water solubility</b>	: Completely miscible
<b>Solubility in other solvents</b>	: Readily soluble in various organic solvents
<b>Partition coefficient: n-octanol/water</b>	: log Pow: 0.05
<b>Auto-ignition temperature</b>	: 425 °C / 797 °F Method: ASTM D-2155

Effective Date: June 2021  
REF NO.:AK21/0112/IPA

## Iso Propyl Alcohol / IPA

<b>Decomposition temperature</b>	: Not applicable
<b>Viscosity</b>	
<b>Viscosity, dynamic</b>	: 2.43 mPa.s
<b>Viscosity, kinematic</b>	: Data not available
<b>Explosive properties</b>	: Not classified
<b>Oxidizing properties</b>	: Not applicable
<b>Surface tension</b>	: 22.7 mN/m, 20 °C / 68 °F
<b>Conductivity</b>	: Electrical conductivity: > 10,000 pS/m A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid, This material is not expected to be a static accumulator.
<b>Molecular weight</b>	: 60.1 g/mol

## 10. Stability and Reactivity

### Reactivity

The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.

### Chemical stability

No hazardous reaction is expected when handled and stored according to provisions

### Possibility of hazardous reactions

Reacts with strong oxidising agents.

### Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources. Prevent vapour accumulation. In certain circumstances product can ignite due to static electricity.

### Incompatible materials

Strong oxidising agents..

### Hazardous decomposition products

Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulphur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

## 11. Toxicological Information

### Basis for assessment

Information given is based on product testing.

### Information on likely routes of exposure

Exposure may occur via inhalation, ingestion, skin absorption, skin or eye contact, and accidental ingestion.

Effective Date: June 2021  
REF NO.:AK21/0112/IPA

## Iso Propyl Alcohol / IPA

### Acute toxicity

**Product:**

Acute oral toxicity : LD50 Rat: > 5000 mg/kg  
Remarks: Low toxicity

Acute inhalation toxicity : Remarks: Low toxicity by inhalation.

Acute dermal toxicity : LD50 Rabbit: > 5000 mg/kg  
Remarks: Low toxicity

### Skin corrosion/irritation

**Product:**

Remarks: Not irritating to skin.

### Serious eye damage/eye irritation

**Product:**

Remarks: Causes serious eye irritation.

### Respiratory or skin sensitisation

**Product:**

Remarks: Not a sensitiser.

Based on available data, the classification criteria are not met.

### Germ cell mutagenicity

**Product:**

Remarks: Not mutagenic.

### Carcinogenicity

**Product:**

Remarks: Not a carcinogen.

Material	GHS/CLP Carcinogenicity Classification
Isopropyl alcohol	No carcinogenicity classification.

Material	Other Carcinogenicity Classification
Isopropyl alcohol	IARC: Group 3: Not classifiable as to its carcinogenicity to humans.

### Reproductive toxicity

**Product:**

Remarks: Does not impair fertility., Not a developmental toxicant., Based on available data, the classification criteria are not met.

### STOT - single exposure

**Product:**

Remarks: May cause drowsiness and dizziness.

### STOT - repeated exposure

**Product:**

Remarks: Kidney: caused kidney effects in male rats which are not considered relevant to humans

### Aspiration toxicity

**Product:**

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.



Effective Date: June 2021  
REF NO.:AK21/0112/IPA

## Iso Propyl Alcohol / IPA

### Further information

**Product:**

Remarks: Exposure may enhance the toxicity of other materials., Classifications by other authorities under varying regulatory frameworks may exist.

## 12. Ecological Information

### Basis for assessment

Information given is based on product testing.

### Ecotoxicity

**Product:**

Toxicity to fish (Acute toxicity) : Remarks: Practically non toxic  
LL/EL/IL50 > 100 mg/l

Toxicity to crustacean (Acute toxicity) : Remarks: Practically non toxic:  
LL/EL/IL50 > 100 mg/l

Toxicity to algae/aquatic plants (Acute toxicity) : Remarks: Practically non toxic:  
LL/EL/IL50 > 100 mg/l

Toxicity to fish (Chronic toxicity) : Remarks: Data not available

Toxicity to crustacean (Chronic toxicity) : Remarks: Data not available

Toxicity to microorganisms (Acute toxicity) : Remarks: Practically non toxic:  
LL/EL/IL50 > 100 mg/l

### Persistence and degradability

**Product:**

Biodegradability : Remarks: Readily biodegradable., Oxidises rapidly by photochemical reactions in air.

### Bioaccumulative potential

**Product:**

Bioaccumulation : Remarks: Does not bioaccumulate significantly.  
Partition coefficient: noctanol/water : log Pow: 0.05

### Mobility in soil

**Product:**

Mobility : Remarks: Dissolves in water., If the product enters soil, one or more constituents will or may be mobile and may contaminate groundwater.

### Other adverse effects

no data available

**Product:**

Additional ecological information : Does not have ozone depletion potential.

## 13. Disposal Considerations

### Disposal methods

### Waste from residues

Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses Waste product should not be allowed to contaminate soil or water.

Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and

Effective Date: June 2021  
REF NO.:AK21/0112/IPA

## Iso Propyl Alcohol / IPA

must be complied with.

### Contaminated packaging

Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not, puncture, cut, or weld uncleaned drums. Send to drum recoverer or metal reclaimer.

## 14. Transport Information

### International Regulations

#### ADR

UN number	: 1219
Proper shipping name	: ISOPROPANOL
Class	: 3
Packing group	: II
Labels	: 3
Hazard Identification Number	: 33
Environmentally hazardous	: no

#### IATA-DGR

UN/ID No.	: UN 1219
Proper shipping name	: ISOPROPANOL
Class	: 3
Packing group	: II
Labels	: 3

#### IMDG-Code

UN number	: UN 1219
Proper shipping name	: ISOPROPANOL
Class	: 3
Packing group	: II
Labels	: 3
Marine pollutant	: no

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

Pollution category	: Z
Ship type	: 3
Product name	: Isopropyl alcohol

### Special precautions for user

#### Remarks

Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

Effective Date: June 2021  
REF NO.:AK21/0112/IPA

## Iso Propyl Alcohol / IPA

### Additional Information

This product may be transported under nitrogen blanketing. Nitrogen is an odourless and invisible gas. Exposure to nitrogen enriched atmospheres displaces available oxygen which may cause asphyxiation or death. Personnel must observe strict safety precautions when involved with a confined space entry.

## 15. Regulatory Information

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

#### Local Regulations

Workplace Safety and Health Act & Workplace Safety and Health (General Provision) Regulations	This product is subject to the SDS, Labelling, PEL and other requirements in the Act/ Regulations.
Fire Safety Act and Fire Safety (Petroleum & Flammable Materials) Regulations	This product is subject to the requirements in the Act/ Regulations.
Maritime and Port Authority of Singapore (Dangerous Goods, Petroleum and Explosives) Regulations	This product is subject to the requirements in the Act/ Regulations.
Environmental Protection and Management Act and Environmental Protection and Management (Hazardous Substances) Regulations	This product is not subject to the requirements in the Act/Regulations.

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

#### Other international regulations

#### The components of this product are reported in the following inventories:

AIC	: Listed
DSL	: Listed
IECSC	: Listed
ENCS	: Listed
KECI	: Listed
NZIoC	: Listed
PICCS	: Listed
EINECS/ELINCS/EC	: Listed
TSCA	: Listed
TCSI	: Listed

## 16. Other Information

H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.

#### Full text of other abbreviations

Eye Irrit. Eye irritation  
Flam. Liq. Flammable liquids  
STOT SE Specific target organ toxicity - single exposure

Effective Date: June 2021  
REF NO.:AK21/0112/IPA

## Iso Propyl Alcohol / IPA

AIIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation, Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System.

### Disclaimer

This information is based on our current knowledge and is intended to describe the product for the only. It should not therefore be construed as guaranteeing any specific property of the product.