



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** LPS® Micro-X

### Other means of identification

**Part Number** 04516

### Recommended use of the chemical and restrictions on use

**Recommended use** A fast drying industrial cleaning solvent designed to remove soil and other contaminants.

**Restrictions on use** Not available.

### Details of manufacturer or importer

#### Manufacturer

**Supplier Name** MRO Chem Pty Ltd.  
**Address** Level 19, 644 Chapel Street  
South Yarra, Victoria 3141, Australia  
Tel: +03 9823 6273

**In Case of Emergency** +04 3448 1129

#### Manufacturer

**Company name** ITW Pro Brands  
**Address** 4647 Hugh Howell Rd., Tucker, GA 30084 (U.S.A.)  
**Website** <http://www.lpslabs.com>  
**E-mail** [lpssds@itwprobrands.com](mailto:lpssds@itwprobrands.com)

## 2. Hazard(s) identification

### Classification of the hazardous chemical

<b>Physical hazards</b>	Flammable aerosols	Category 1
	Gases under pressure	Compressed gas
<b>Health hazards</b>	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
<b>Environmental hazards</b>	Hazardous to the aquatic environment, long-term hazard	Category 2

### Label elements, including precautionary statements

#### Hazard symbol(s)



Flame      Gas cylinder      Health hazard      Exclamation mark      Environment

**Signal word** Danger

**Hazard statement(s)** Extremely flammable aerosol. Pressurized container: May burst if heated. Contains gas under pressure; may explode if heated. Causes skin irritation. Causes serious eye irritation. Suspected of damaging fertility or the unborn child. May cause drowsiness or dizziness. Toxic to aquatic life with long lasting effects.

## Precautionary statement(s)

### Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

### Response

IF exposed or concerned: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Collect spillage.

### Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

### Other hazards which do not result in classification

None known.

### Supplemental information

None.

## 3. Composition/information on ingredients

### Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
2-Methylpentane	107-83-5	70 - 80
Isopropanol	67-63-0	5 - 15
Pentane	109-66-0	1 - 10
Carbon Dioxide	124-38-9	1 - 5
N-Hexane	110-54-3	0.1 - 1

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

### Description of necessary first aid measures

#### Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician if symptoms develop or persist.

#### Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.

#### Eye contact

Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or Poison Control Center immediately.

#### Ingestion

Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

### Personal protection for first-aid responders

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wash contaminated clothing before reuse.

### Symptoms caused by exposure

Irritation of eyes and mucous membranes. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Defatting of the skin. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Narcosis. Behavioral changes. Prolonged exposure may cause chronic effects.

### Medical attention and special treatment

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

## 5. Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media

Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed. Fire may produce irritating, corrosive and/or toxic gases. By heating and fire, harmful vapors/gases may be formed. Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back.
<b>Special protective equipment and precautions for fire fighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Firefighters should wear full protective clothing including self contained breathing apparatus. Structural firefighters protective clothing will only provide limited protection. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Use standard firefighting procedures and consider the hazards of other involved materials. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. In the event of fire, cool tanks with water spray. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Some of these materials, if spilled, may evaporate leaving a flammable residue. Water runoff can cause environmental damage.
<b>Hazchem code</b>	None.
<b>General fire hazards</b>	Extremely flammable aerosol.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials. Move container from fire area if it can be done without risk. Use water spray to cool unopened containers. In the event of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	Immediately evacuate personnel to safe areas. Consider initial downwind evacuation for at least 500 meters (1/3 mile). Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep upwind. Wear appropriate personal protective equipment. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors and spray mists. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>For emergency responders</b>	Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.
<b>Environmental precautions</b>	Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.
<b>Methods and materials for containment and cleaning up</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Extinguish all flames in the vicinity. Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use foam to blanket spilled material. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills in original containers for re-use. For waste disposal, see section 13 of the SDS.

**Other issues relating to spills and releases**

Clean up in accordance with all applicable regulations.

**7. Handling and storage**

**Precautions for safe handling**

Should be handled in closed systems, if possible. Vapors may form explosive mixtures with air. May be ignited by open flame. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep away from sources of ignition - No smoking. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Do not smoke. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Use non-sparking tools and explosion-proof equipment.

Avoid contact during pregnancy/while nursing. Do not breathe dust/fume/gas/mist/vapors/spray. Do not breathe mist or vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Avoid breathing mist or vapor. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Do not get this material on clothing.

Use only in area provided with appropriate exhaust ventilation. Provide adequate ventilation. Do not use in areas without adequate ventilation. Wear appropriate personal protective equipment. Wear personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash thoroughly after handling. Use appropriate container to avoid environmental contamination. Avoid release to the environment. Do not empty into drains.

**Conditions for safe storage, including any incompatibilities**

Level 3 Aerosol.

Keep locked up. Store locked up. The pressure in sealed containers can increase under the influence of heat. Do not handle or store near an open flame, heat or other sources of ignition. Keep away from heat, sparks and open flame. Keep away from heat and sources of ignition. Eliminate sources of ignition.

Store in a closed container away from incompatible materials. Use appropriate container to avoid environmental contamination. Keep container tightly closed. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store in cool place. Keep away from food, drink and animal feedings. Keep out of the reach of children. Keep in an area equipped with sprinklers.

**8. Exposure controls and personal protection**

**Control parameters**

Follow standard monitoring procedures.

**Occupational exposure limits**

**Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)**

Components	Type	Value
Carbon Dioxide (CAS 124-38-9)	STEL	54000 mg/m3
	TWA	30000 ppm 22500 mg/m3 12500 ppm
Isopropanol (CAS 67-63-0)	STEL	1230 mg/m3
	TWA	500 ppm 983 mg/m3 400 ppm
N-Hexane (CAS 110-54-3)	TWA	72 mg/m3 20 ppm
	STEL	2210 mg/m3
Pentane (CAS 109-66-0)	TWA	750 ppm 1770 mg/m3 600 ppm

**Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)**

Components	Type	Value
Carbon Dioxide (CAS 124-38-9)	STEL	54000 mg/m3
	TWA	30000 ppm
		22500 mg/m3 12500 ppm

**Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)**

<b>Components</b>	<b>Type</b>	<b>Value</b>
Isopropanol (CAS 67-63-0)	STEL	1230 mg/m <sup>3</sup> 500 ppm
	TWA	983 mg/m <sup>3</sup> 400 ppm
N-Hexane (CAS 110-54-3)	TWA	72 mg/m <sup>3</sup> 20 ppm
	STEL	2210 mg/m <sup>3</sup> 750 ppm
Pentane (CAS 109-66-0)	TWA	1770 mg/m <sup>3</sup> 600 ppm

**US. ACGIH Threshold Limit Values**

<b>Components</b>	<b>Type</b>	<b>Value</b>
2-Methylpentane (CAS 107-83-5)	STEL	1000 ppm
	TWA	500 ppm
Carbon Dioxide (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm
Isopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm
N-Hexane (CAS 110-54-3)	TWA	50 ppm
Pentane (CAS 109-66-0)	TWA	1000 ppm

**UK. EH40 Workplace Exposure Limits (WELs)**

<b>Components</b>	<b>Type</b>	<b>Value</b>
Carbon Dioxide (CAS 124-38-9)	STEL	27400 mg/m <sup>3</sup> 15000 ppm
	TWA	9150 mg/m <sup>3</sup> 5000 ppm
Isopropanol (CAS 67-63-0)	STEL	1250 mg/m <sup>3</sup> 500 ppm
	TWA	999 mg/m <sup>3</sup> 400 ppm
N-Hexane (CAS 110-54-3)	TWA	72 mg/m <sup>3</sup> 20 ppm
	TWA	1800 mg/m <sup>3</sup> 600 ppm

**Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)**

<b>Components</b>	<b>Type</b>	<b>Value</b>
2-Methylpentane (CAS 107-83-5)	TWA	1800 mg/m <sup>3</sup> 500 ppm
	TWA	9100 mg/m <sup>3</sup> 5000 ppm
Isopropanol (CAS 67-63-0)	TWA	500 mg/m <sup>3</sup> 200 ppm
	TWA	180 mg/m <sup>3</sup> 50 ppm
Pentane (CAS 109-66-0)	TWA	3000 mg/m <sup>3</sup> 1000 ppm

## Biological limit values

### Germany. TRGS 903, BAT List (Biological Limit Values)

Components	Value	Determinant	Specimen	Sampling Time
Isopropanol (CAS 67-63-0)	25 mg/l	Aceton	Urine	*
	25 mg/l	Aceton	Blood	*
N-Hexane (CAS 110-54-3)	5 mg/l	2,5-Hexandion plus 4,5-Dihydroxy-2-hexanon (nach Hydrolyse)	Urine	*

\* - For sampling details, please see the source document.

### ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Isopropanol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*
N-Hexane (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedion, without hydrolysis	Urine	*

\* - For sampling details, please see the source document.

## Exposure guidelines

### US ACGIH Threshold Limit Values: Skin designation

N-Hexane (CAS 110-54-3)

Can be absorbed through the skin.

### Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas. Provide eyewash station.

## Individual protection measures, for example personal protective equipment (PPE)

### Eye/face protection

Wear safety glasses with side shields (or goggles). Eye wash fountain is recommended.

### Skin protection

#### Hand protection

For prolonged or repeated skin contact use suitable protective gloves. Chemical resistant gloves are recommended.

#### Other

Avoid contact with the skin. Wear appropriate chemical resistant clothing.

### Respiratory protection

No personal respiratory protective equipment normally required. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.

### Thermal hazards

None known.

## Hygiene measures

When using do not smoke. When using, do not eat, drink or smoke. Wash hands after handling. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

Liquid.

### Physical state

Gas.

### Form

Aerosol.

### Color

Clear water-white

### Odor

Solvent.

### Odor threshold

Not available.

### pH

Not available.

### Melting point/freezing point

Not available.

### Initial boiling point and boiling range

140.9 °F (60.5 °C) dispensed liquid

### Flash point

< 1.4 °F (< -17.0 °C) Tag Closed Cup

### Evaporation rate

< 1 (Ethyl Ether = 1)

### Flammability (solid, gas)

Flammable gas.

**Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** 0.6 %

**Flammability limit - upper (%)** 7 %

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** 352.53 mm Hg @ 38°C

**Vapor density** ~3 (air = 1)

**Relative density** Not available.

**Solubility(ies)**

**Solubility (water)** < 10 % w/w

**Partition coefficient (n-octanol/water)** > 1

**Auto-ignition temperature** 582.8 °F (306 °C)

**Decomposition temperature** Not available.

**Viscosity** < 3 cSt @ 25°C

**Other physical and chemical parameters**

**Heat of combustion** > 30 kJ/g

**Percent volatile** 100 %

**Specific gravity** 0.64 - 0.67 @ 20°C

**VOC** 96.2 % per U.S, State and Federal Consumer Product Regulations; 669 g/L per SCAQMD Rule 102

**10. Stability and reactivity**

**Reactivity** The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability** Risk of ignition. Instability caused by elevated temperatures.

**Possibility of hazardous reactions** No dangerous reaction known under conditions of normal use.

**Conditions to avoid** Heat, flames and sparks. Aerosol containers are unstable at temperatures above 50°C. Avoid temperatures exceeding the flash point.

**Incompatible materials** Strong oxidizing agents. Isocyanates. Acids. Chlorine. Do not mix with other chemicals.

**Hazardous decomposition products** Carbon oxides.

**11. Toxicological information****Information on possible routes of exposure**

**Inhalation** Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

**Skin contact** Causes skin irritation. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

**Eye contact** Causes serious eye irritation.

**Ingestion** May cause discomfort if swallowed.

**Symptoms related to exposure** Skin irritation. Defatting of the skin. Irritating to eyes and respiratory system. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**Acute toxicity** Narcotic effects.

**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/irritation** Causes serious eye irritation.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**ACGIH Carcinogens**

Isopropanol (CAS 67-63-0) A4 Not classifiable as a human carcinogen.

**Reproductive toxicity** Suspected of damaging fertility or the unborn child.

**Specific target organ toxicity - single exposure** Narcotic effects.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not likely, due to the form of the product.

**Chronic effects** None known.

**Other information** None known.

**12. Ecological information**

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

Components	Species	Test Results
Isopropanol (CAS 67-63-0)		
<b>Aquatic</b>		
Fish	LC50 Bluegill ( <i>Lepomis macrochirus</i> )	> 1400 mg/l, 96 hours
N-Hexane (CAS 110-54-3)		
<b>Aquatic</b>		
Fish	LC50 Fathead minnow ( <i>Pimephales promelas</i> )	2.101 - 2.981 mg/l, 96 hours

**Persistence and degradability** Not inherently biodegradable.

**Bioaccumulative potential** No data available for this product.

**Partition coefficient**

**n-octanol / water (log Kow)**

LPS® Micro-X	> 1
2-Methylpentane	3.74
Isopropanol	0.05
N-Hexane	3.9
Pentane	3.39

**Mobility in soil** Not available.

**Other adverse effects** None known.

**13. Disposal considerations**

**Disposal methods** Contract with a disposal operator licensed by the Law on Disposal and Cleaning. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Incinerate the material under controlled conditions in an approved incinerator. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not incinerate sealed containers. Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations. Dispose in accordance with all applicable regulations. When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste.

**Residual waste** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Avoid discharge into water courses or onto the ground.

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

**14. Transport information**

**ADG**

**UN number** 1950  
**UN proper shipping name** AEROSOLS, flammable



**Transport hazard class(es)**

**Class** 2.1  
**Subsidiary risk** -  
**Packing group** Not available.  
**Environmental hazards** Not available.  
**Hazchem code** 2YE  
**Special precautions for user** Not available.

**RID**

**UN number** 1950  
**UN proper shipping name** AEROSOLS, flammable  
**Transport hazard class(es)**  
**Class** 2.1  
**Subsidiary risk** -  
**Label(s)** 2.1  
**Packing group** Not available.  
**Environmental hazards** No.  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

**IATA**

**UN number** 1950  
**UN proper shipping name** Aerosols, flammable  
**Transport hazard class(es)**  
**Class** 2.1  
**Subsidiary risk** -  
**Packing group** Not available.  
**Environmental hazards** No.  
**ERG Code** 2X  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

**Other information**

**Passenger and cargo aircraft** Allowed with restrictions.  
**Cargo aircraft only** Allowed with restrictions.

**IMDG**

**UN number** 1950  
**UN proper shipping name** AEROSOLS, flammable, MARINE POLLUTANT  
**Transport hazard class(es)**  
**Class** 2.1  
**Subsidiary risk** -  
**Label(s)** 2.1  
**Packing group** Not available.  
**Environmental hazards**  
**Marine pollutant** Yes  
**EmS** F-D, S-U  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

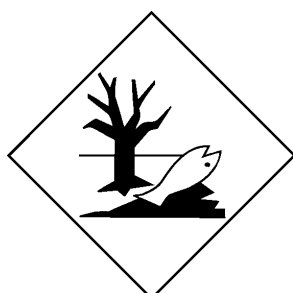
ADG



IATA; IMDG; RID



Marine pollutant



General information

IMDG Regulated Marine Pollutant.

## 15. Regulatory information

Safety, health and environmental regulations

National regulations

**Australia Medicines & Poisons Appendix E**

HYDROCARBONS, LIQUID (CAS 110-54-3)

**Australia Medicines & Poisons Schedule 5**

HYDROCARBONS, LIQUID, INCLUDING KEROSENE, DIESEL (DISTILLATE), MINERAL TURPENTINE, WHITE PETROLEUM SPIRIT, TOLUENE, XYLENE AND LIGHT MINERAL AND PARAFFIN OILS (BUT EXCLUDING THEIR DERIVATIVES) (CAS 110-54-3)

**Australia National Pollutant Inventory (NPI): Threshold quantity**

N-Hexane (CAS 110-54-3) 10 TONNES/YR Threshold Category: 1

**High Volume Industrial Chemicals (HVIC)**

Carbon Dioxide (CAS 124-38-9)	100000 - 999999 TONNES See the regulation for additional information.
Isopropanol (CAS 67-63-0)	1000 - 9999 TONNES See the regulation for additional information.
N-Hexane (CAS 110-54-3)	10000 - 99999 TONNES See the regulation for additional information.
Pentane (CAS 109-66-0)	10000 - 99999 TONNES See the regulation for additional information.

**Importation of Ozone Deleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)**

Not listed.

**National Pollutant Inventory (NPI) substance reporting list**

Not listed.

**Prohibited Carcinogenic Substances**

Not regulated.

**Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)**

Not listed.

**Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)**

Not listed.

**Restricted Carcinogenic Substances**

Not regulated.

**International regulations**

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

**Stockholm Convention**

Not applicable.

**Rotterdam Convention**

Not applicable.

**Kyoto protocol**

Carbon Dioxide (CAS 124-38-9) Listed.

**Montreal Protocol**

Not applicable.

**Basel Convention**

Not applicable.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information**

<b>Issue date</b>	09-15-2015
<b>Revision date</b>	03-23-2017
<b>Further information</b>	HMIS® is a registered trade and service mark of the NPCA.

## References

ACGIH  
EPA: ACQUIRE database  
NLM: Hazardous Substances Data Base  
US. IARC Monographs on Occupational Exposures to Chemical Agents  
Korea. Accidental Release Prevention Substances (Presidential Decree of Toxic Chemical Control Law, Executive Order No. 19203)  
Korea. Dangerous Substances Threshold Quantity (Presidential Decree of Dangerous Substances Safety Management Act No. 18406, Schedule 1)  
Korea. Harmful Substances Prohibited from Manufacturing (Presidential Decree on the Industrial Safety and Health Act (No. 13053), Article 29)  
Korea. Harmful Substances Requiring Permission for Manufacture or Use (Presidential Decree on the Industrial Safety and Health Act (No. 13053), Article 30)  
Korea. Non-Toxic Chemicals List (National Institute of Environment Research (NIER) Public Notice No. 1997-10, as amended)  
Korea. Observational Chemicals (Ministerial Decree of TCCL Article 6)  
Korea. OELs. Regulation for Permitted Concentration of Hazardous Substances (Ministry of Labor (MOL) Public Notice No. 1986-45, as amended)  
Korea. Prohibited Chemical Substances (TCCL Article 11)  
Korea. Regulated volatile organic compounds (VOCs) (MOE Notice No. 2001-36, March 8, 2001, as amended)  
Korea. Restricted Chemical Substances (TCCL Article 11)  
Korea. Toxic Chemical Control Law (TCCL), Existing Chemicals Inventory (KECI)  
Korea. Toxic Chemical Control Law (TCCL), pre-1997 List  
Korea. Toxic Chemicals (TCCL Article 10)  
Korea. Toxic Release Inventory (TRI) Chemicals (TCCL Article 14)  
Taiwan. Dangerous Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)  
Taiwan. Industrial Precursor Chemicals (Categories and Regulations Governing Inspection and Declaration of Industrial Precursor Chemicals, MOEA Decree No. 87, as amended)  
Taiwan. OELs. (Standards on Workplace Atmosphere of Dangerous and Hazardous Materials)  
Taiwan. Toxic Chemical Substances (TCS) (List of Toxic Chemical Substances announced by the Environmental Protection Administration)  
Taiwan. Toxic Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)  
HSDB® - Hazardous Substances Data Bank  
IARC Monographs. Overall Evaluation of Carcinogenicity  
National Toxicology Program (NTP) Report on Carcinogens  
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices  
Japan Society for Occupational Health, Recommendation of Occupational Exposure Limits  
GOST 30333-2007 - Chemical production safety passport. General requirements  
JIS Z 7252:2009 Classification of chemicals based on "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)"  
JIS Z 7253:2012 Hazard communication of chemicals based on GHS – Labelling and Safety Data Sheet (SDS)  
Japan Chemical Industry Association (JCIA) GHS Guideline, June 2012

## Disclaimer

This safety data sheet was prepared in accordance with JIS Z 7253:2012. Additional information is given in the Material Safety Data Sheet. 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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

## Revision information

Hazard(s) identification: GHS Hazard Statements  
Hazard(s) identification: Prevention  
Hazard(s) identification: Response  
Composition / Information on Ingredients: Disclosure Overrides  
Handling and storage: Precautions for safe handling  
Toxicological information: Chronic effects  
Toxicological information: Specific target organ toxicity - repeated exposure  
Regulatory Information: Risk Phrases - Labeling  
GHS: Classification