



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

+04 3448 1129

In Case of Emergency

Manufacturer

Company name LPS Laboratories, a division of Illinois Tool Works, Inc.
Address 4647 Hugh Howell Rd., Tucker, GA 30084 (U.S.A.)
Website <http://www.lpslabs.com>
E-mail sds@lpslabs.com

2. Hazard(s) identification

Classification of the hazardous chemical

Physical hazards	Flammable aerosols	Category 1
	Gases under pressure	Compressed gas
Health hazards	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
	Specific target organ toxicity, repeated exposure (inhalation)	Category 2 (nervous system)
Environmental hazards	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 None.

Hazard statement(s)

Extremely flammable aerosol. Suspected of damaging fertility or the unborn child. Contains gas under pressure; may explode if heated. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May cause damage to organs (nervous system) through prolonged or repeated exposure by inhalation. Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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 ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. Specific treatment (see this label). 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. IF exposed or concerned: Get medical advice/attention. 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	The Safety Information Sheet Chemicals of hazardous chemical can be obtained through phone, email or on the company website. None known.
Supplemental information	81.77% of the mixture consists of component(s) of unknown acute oral toxicity. % of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. Not applicable.

3. Composition/information on ingredients

Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
2-Methylpentane	107-83-5	40 - 50
2,3-Dimethylbutane	79-29-8	10 - 20
3-Methylpentane	96-14-0	10 - 20
Isopropanol ISOPROPYL ALCOHOL (IPA)	67-63-0	5 - 15
2,2-Dimethylbutane	75-83-2	1 - 10
Carbon Dioxide	124-38-9	1 - 5
N-hexane	110-54-3	< 3

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 ₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical	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.
Special protective equipment and precautions for fire fighters	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.
Fire fighting equipment/instructions	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. In the event of fire, cool tanks with water spray. Move containers from fire area if you can do so without risk. Some of these materials, if spilled, may evaporate leaving a flammable residue. Water runoff can cause environmental damage.
Hazchem code	Not available.
General fire hazards	Extremely flammable aerosol.
Specific methods	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

For non-emergency personnel 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.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

Environmental precautions Avoid release to the environment. Refer to special instructions/safety data sheets. 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.

Methods and materials for containment and cleaning up 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.

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. Clean up in accordance with all applicable regulations.

Other issues relating to spills and releases

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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.

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 contact during pregnancy/while nursing. 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

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 feedingstuffs. 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
2,2-Dimethylbutane (CAS 75-83-2)	STEL	3500 mg/m ³
	TWA	1000 ppm
		1760 mg/m ³
Carbon Dioxide (CAS 124-38-9)	STEL	500 ppm
	TWA	54000 mg/m ³
		30000 ppm
Isopropanol (CAS 67-63-0)	TWA	22500 mg/m ³
	STEL	12500 ppm
		1230 mg/m ³
N-hexane (CAS 110-54-3)	TWA	500 ppm
	STEL	983 mg/m ³
		400 ppm
N-hexane (CAS 110-54-3)	TWA	72 mg/m ³
	STEL	20 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/m ³
	TWA	30000 ppm
		22500 mg/m ³
Isopropanol (CAS 67-63-0)	STEL	12500 ppm
	STEL	1230 mg/m ³
		500 ppm

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

Components	Type	Value
	TWA	983 mg/m ³
		400 ppm
N-hexane (CAS 110-54-3)	TWA	72 mg/m ³
		20 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
2,2-Dimethylbutane (CAS 75-83-2)	STEL	1000 ppm
	TWA	500 ppm
2,3-Dimethylbutane (CAS 79-29-8)	STEL	1000 ppm
	TWA	500 ppm
2-Methylpentane (CAS 107-83-5)	STEL	1000 ppm
	TWA	500 ppm
3-Methylpentane (CAS 96-14-0)	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

UK. EH40 Workplace Exposure Limits (WELs)

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

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

Components	Type	Value
Carbon Dioxide (CAS 124-38-9)	TWA	9100 mg/m ³
		5000 ppm
Isopropanol (CAS 67-63-0)	TWA	500 mg/m ³
		200 ppm
N-hexane (CAS 110-54-3)	TWA	180 mg/m ³
		50 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	*

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

Components	Value	Determinant	Specimen	Sampling Time
N-hexane (CAS 110-54-3)	5 mg/l	2,5-Hexandion plus 4,5-Dihydroxy-2-hexanon	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. Chemical resistant gloves.

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 (Weight %)	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 explosion. Risk of ignition. Instability caused by elevated temperatures.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.
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

Ingestion	May cause discomfort if swallowed.
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.
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.

Components	Species	Test Results
Isopropanol (CAS 67-63-0)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	12800 mg/kg 16.4 ml/kg
<i>Inhalation</i>		
LC50	Rat	> 10000 ppm

Components	Species	Test Results
<i>Oral</i>		
LD50	Dog	4797 mg/kg
	Mouse	3600 mg/kg
	Rabbit	5.03 g/kg
	Rat	4.7 g/kg
<i>Other</i>		
LD50	Mouse	1509 mg/kg
	Rat	1099 mg/kg
N-hexane (CAS 110-54-3)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg > 5 ml/kg
<i>Inhalation</i>		
LC50	Mouse	48000 mg/l, 4 Hours
	Rat	> 5000 ppm > 31.86 mg/l
<i>Oral</i>		
LD50	Rat	24 ml/kg 24 mg/kg
	Wistar rat	49 mg/kg

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 May cause damage to organs (nervous system) through prolonged or repeated exposure by inhalation.

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

Chronic effects Causes damage to organs through prolonged or repeated exposure.

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)		
Aquatic		
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>) > 1400 mg/l, 96 hours
N-hexane (CAS 110-54-3)		
Aquatic		
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
2,2-Dimethylbutane	3.82
2,3-Dimethylbutane	3.42
2-Methylpentane	3.74
3-Methylpentane	3.6
Isopropanol	0.05
N-hexane	3.9

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 applicable.
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 applicable.
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 applicable.
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.
Cargo aircraft only Allowed.

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 applicable.
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.

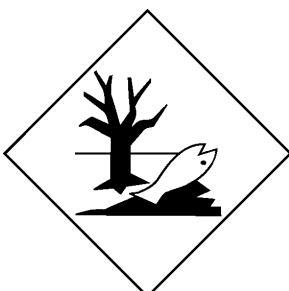
ADG



IATA; IMDG; RID



Marine pollutant



General information

DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

15. Regulatory information

Safety, health and environmental regulations

National regulations

This Material Safety Data Sheet was prepared in accordance with the Australia National Code of Practice for the Preparation of Material Safety Data Sheets (NOHSC: 2011.)

Australia Medicines & Poisons Appendix A

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix B

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix C

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix D

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix E

N-hexane (CAS 110-54-3)

For advice, contact a Poisons information Centre (Phone eg Australia 131 - 126; New Zealand 03 - 4747 - 000) or a doctor (at once)., If swallowed, do NOT induce vomiting.

Australia Medicines & Poisons Appendix F

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix G

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix H

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix I

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix J

Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix K

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 2

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 3

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 4

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 5

N-hexane (CAS 110-54-3)

Exception may apply, see the regulation for relevance.

Australia Medicines & Poisons Schedule 6

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 7

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 8

Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 9

Poisons schedule number not allocated.

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)

10000 - 99999 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)

100000 - 999999 tonnes See the regulation for additional information.

Importation of Ozone Depleting 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**Issue date**

08-03-2014

Further information

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)
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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

Product and Company Identification: Product Uses
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties
Ecological Information: Ecotox Property Data
Transport Information: Material Transportation Information
Regulatory Information: United States
HazReg Data: North America
GHS: Qualifiers