

## 1. Identification

**Product identifier** LPS® CFC Free (Aerosol)

**Other means of identification**  
**Part Number** 03116, C03116

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

**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor information

#### Manufacturer

**Company name** ITW Pro Brands  
**Address** 4647 Hugh Howell Rd.  
 Tucker, GA 30084  
**Country** (U.S.A.)  
 Tel: +1 770-243-8800

**In Case of Emergency** 1-800-424-9300  
 1-703-527-3887

**Website** www.lpslabs.com  
**E-mail** lpssds@itwprobrands.com

#### Supplier

ITW Permatex Canada  
 1-35 Brownridge Road  
 Halton Hills, ON, L7G 0C6  
 Canada  
 1-800-241-8334

## 2. Hazard(s) identification

**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

**Environmental hazards** Not classified.

### Label elements



**Signal word** Danger

**Hazard statement** Extremely flammable aerosol. 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.

**Precautionary statement**  
**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. Do not spray on an open flame or other ignition source. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

<b>Response</b>	IF exposed or concerned: Get medical advice/attention. If on skin: Wash with plenty of water/soap. 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 person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Storage</b>	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.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Other hazards</b>	None known.
<b>Supplemental information</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
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

<b>Inhalation</b>	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.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	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.
<b>Ingestion</b>	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.
<b>Most important symptoms/effects, acute and delayed</b>	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.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	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.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	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 firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection.

**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. 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.

**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.

**General fire hazards**

Extremely flammable aerosol.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Consider initial downwind evacuation for at least 500 meters (1/3 mile). Immediately evacuate personnel to safe areas. 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). Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**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. 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.

**Environmental precautions**

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.

**7. Handling and storage**

**Precautions for safe handling**

Should be handled in closed systems, if possible. Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. 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 mist or vapor. Do not taste or swallow. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure.

Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

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

Store locked up. Keep away from heat, sparks and open flame. Eliminate sources of ignition.

Keep container tightly closed. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Keep in an area equipped with sprinklers.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value
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

#### Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
2-METHYLPENTANE (CAS 107-83-5)	STEL	3500 mg/m3
	TWA	1000 ppm 1760 mg/m3
CARBON DIOXIDE (CAS 124-38-9)	STEL	500 ppm 54000 mg/m3
	TWA	30000 ppm 9000 mg/m3
ISOPROPANOL (CAS 67-63-0)	STEL	5000 ppm 984 mg/m3
	TWA	400 ppm 492 mg/m3
N-HEXANE (CAS 110-54-3)	TWA	200 ppm 176 mg/m3 50 ppm

#### Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
CARBON DIOXIDE (CAS 124-38-9)	STEL	15000 ppm
	TWA	5000 ppm
ISOPROPANOL (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm
N-HEXANE (CAS 110-54-3)	TWA	20 ppm
PENTANE (CAS 109-66-0)	TWA	600 ppm

#### Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
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

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

Components	Type	Value
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	600 ppm

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)**

Components	Type	Value
CARBON DIOXIDE (CAS 124-38-9)	STEL	54000 mg/m3
	TWA	30000 ppm 9000 mg/m3
ISOPROPANOL (CAS 67-63-0)	STEL	5000 ppm 1230 mg/m3
	TWA	500 ppm 983 mg/m3
N-HEXANE (CAS 110-54-3)	TWA	400 ppm 176 mg/m3
PENTANE (CAS 109-66-0)	TWA	50 ppm 350 mg/m3 120 ppm

**Biological limit values****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****Canada - Alberta OELs: Skin designation**

N-HEXANE (CAS 110-54-3) Can be absorbed through the skin.

**Canada - British Columbia OELs: Skin designation**

N-HEXANE (CAS 110-54-3) Can be absorbed through the skin.

**Canada - Manitoba OELs: Skin designation**

N-HEXANE (CAS 110-54-3) Can be absorbed through the skin.

**Canada - Ontario OELs: Skin designation**

N-HEXANE (CAS 110-54-3) Can be absorbed through the skin.

**Canada - Quebec OELs: Skin designation**

N-HEXANE (CAS 110-54-3) Can be absorbed through the skin.

**Canada - Saskatchewan OELs: Skin designation**

N-HEXANE (CAS 110-54-3) Can be absorbed through the skin.

**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, such as personal protective equipment**

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

<b>Skin protection</b>	
<b>Hand protection</b>	For prolonged or repeated skin contact use suitable protective gloves. Chemical resistant gloves are recommended.
<b>Other</b>	Avoid contact with the skin. Wear appropriate chemical resistant clothing.
<b>Respiratory protection</b>	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.
<b>Thermal hazards</b>	None known.
<b>General hygiene considerations</b>	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

<b>Appearance</b>	Liquid.
<b>Physical state</b>	Gas.
<b>Form</b>	Aerosol.
<b>Color</b>	Clear water-white
<b>Odor</b>	Solvent.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	140.9 °F (60.5 °C) dispensed liquid
<b>Flash point</b>	< 1.4 °F (< -17.0 °C) Tag Closed Cup
<b>Evaporation rate</b>	< 1 (Ethyl Ether = 1)
<b>Flammability (solid, gas)</b>	Flammable gas.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	0.6 %
<b>Flammability limit - upper (%)</b>	7 %
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	352.53 mm Hg @ 38°C
<b>Vapor density</b>	~3 (air = 1)
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	< 10 % w/w
<b>Partition coefficient (n-octanol/water)</b>	> 1
<b>Auto-ignition temperature</b>	582.8 °F (306 °C)
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	< 3 cSt @ 25°C
<b>Other information</b>	
<b>Heat of combustion</b>	> 30 kJ/g
<b>Percent volatile</b>	100 %
<b>Specific gravity</b>	0.64 - 0.67 @ 20°C
<b>VOC</b>	96.2 % per U.S, State and Federal Consumer Product Regulations; 669 g/L per SCAQMD Rule 102

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Risk of ignition. Instability caused by elevated temperatures.

<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Heat, flames and sparks. Aerosol containers are unstable at temperatures above 50°C. Avoid temperatures exceeding the flash point.
<b>Incompatible materials</b>	Strong oxidizing agents. Isocyanates. Acids. Chlorine. Do not mix with other chemicals.
<b>Hazardous decomposition products</b>	Carbon oxides.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.
<b>Skin contact</b>	Causes skin irritation. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	May cause discomfort if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics** 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.

### Information on toxicological effects

**Acute toxicity** Narcotic effects.

Components	Species	Test Results
ISOPROPANOL (CAS 67-63-0)		
<b>Acute</b>		
<b>Oral</b>		
LD50	Rat	4.7 g/kg
N-HEXANE (CAS 110-54-3)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg, 4 Hours
PENTANE (CAS 109-66-0)		
<b>Acute</b>		
<b>Oral</b>		
LD50	Rat	> 2000 mg/kg
<b>Skin corrosion/irritation</b>	Causes skin irritation.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.	
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
<b>ACGIH Carcinogens</b>		
ISOPROPANOL (CAS 67-63-0)	A4 Not classifiable as a human carcinogen.	
<b>Canada - Manitoba OELs: carcinogenicity</b>		
ISOPROPANOL (CAS 67-63-0)	Not classifiable as a human carcinogen.	
<b>Reproductive toxicity</b>	Suspected of damaging fertility or the unborn child.	
<b>Specific target organ toxicity - single exposure</b>	Narcotic effects.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Not likely, due to the form of the product.	
<b>Chronic effects</b>	None known.	

Further 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® CFC Free (Aerosol)	> 1
2-METHYLPENTANE	3.74
ISOPROPANOL	0.05
N-HEXANE	3.9
PENTANE	3.39

Mobility in soil Readily absorbed into soil.

Other adverse effects None known.

## 13. Disposal considerations

**Disposal instructions** 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. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazardous waste code** Not regulated.

**Waste from residues / unused products** 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

### TDG

UN number	UN1950
UN proper shipping name	AEROSOLS, flammable, MARINE POLLUTANT
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not available.
Environmental hazards	Yes
Special precautions for user	Not available.

### IATA

UN number	UN1950
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** UN1950  
**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.

**IATA; IMDG; TDG****Marine pollutant****General information**

IMDG Regulated Marine Pollutant.

**15. Regulatory information****Canadian regulations**

This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

**Controlled Drugs and Substances Act**

Not regulated.

**Export Control List (CEPA 1999, Schedule 3)**

Not listed.

**Greenhouse Gases**

CARBON DIOXIDE (CAS 124-38-9)

**Precursor Control Regulations**

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**

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
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>	05-18-2016
<b>Revision date</b>	08-21-2017
<b>Version #</b>	04
<b>Further information</b>	HMIS® is a registered trade and service mark of the NPCA.

## References

ACGIH  
EPA: AQUIRE 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)"  
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## 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

Regulatory Information: Risk Phrases - Labeling  
GHS: Classification