SAFETY DATA SHEET



Flammable Gas Mixture: 1,3-Butadiene / Cyclopropane / Ethane / Isobutane / Isobutylene / Methyl Acetylene / Propadiene / Propane / Propylene

Section 1. Identification

GHS product identifier	: Flammable Gas Mixture: 1,3-Butadiene / Cyclopropane / Ethane / Isobutane / Isobutylene / Methyl Acetylene / Propadiene / Propane / Propylene
Other means of identification	: Not available.
Product use	: Synthetic/Analytical chemistry.
SDS #	: 012783
Supplier's details	: Airgas USA, LLC and its affiliates 259 North Radnor-Chester Road Suite 100 Radnor, PA 19087-5283 1-610-687-5253
Emergency telephone number (with hours of operation)	: 1-866-734-3438

Section 2. Hazards identification

OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: FLAMMABLE GASES - Category 1 GASES UNDER PRESSURE - Compressed gas
GHS label elements	
Hazard pictograms	
Signal word	: Danger
Hazard statements	: Extremely flammable gas. May form explosive mixtures with air. Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation.
Precautionary statements	
General	: Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. Approach suspected leak area with caution.
Prevention	: Never Put cylinders into unventilated areas of passenger vehicles. Keep away from heat, sparks, open flames and hot surfaces No smoking. Use and store only outdoors or in a well ventilated place.
Response	 Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.
Storage	 Protect from sunlight. Protect from sunlight when ambient temperature exceeds 52°C/125°F. Store in a well-ventilated place.
Disposal	: Not applicable.
Date of issue/Date of revision	: 2/20/2015. Date of previous issue : No previous validation. Version : 0.01 1/12
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Section 2. Hazards identification

Hazards not otherwise classified

: In addition to any other important health or physical hazards, this product may displace oxygen and cause rapid suffocation.

Section 3. Composition/information on ingredients

Substance/mixture	1	Mixture
Other means of	÷	Not available.
identification		

CAS number/other identifiers

CAS number	: Not applicable.
Product code	: 012783

	CAS number
0.0001 - 99	115-07-1
0.0001 - 99	74-98-6
0.0001 - 50	74-84-0
0.0001 - 50	115-11-7
0.0001 - 20	74-99-7
1 - 10	463-49-0
0.0001 - 5	75-28-5
0.0001 - 0.9999	75-19-4
0.0001 - 0.0999	106-99-0
	0.0001 - 99 0.0001 - 50 0.0001 - 50 0.0001 - 20 1 - 10 0.0001 - 5 0.0001 - 0.9999

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: As this product is a gas, refer to the inhalation section.
Most important symptoms/ef	fects, acute and delayed
Potential acute health effect	<u>'S</u>
Eye contact	: Contact with rapidly expanding gas may cause burns or frostbite.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Contact with rapidly expanding gas may cause burns or frostbite.
Frostbite	: Try to warm up the frozen tissues and seek medical attention.

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Section 4. First aid measures

: As this product is a gas, refer to the inhalation section.

Over-exposure	e signs/symptoms	

Ingestion

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.

Ingestion : No specific data.

Indication of immediate mee	dical attention and special treatment needed, if necessary
Notes to physician	 Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures **Extinguishing media** Suitable extinguishing : Use an extinguishing agent suitable for the surrounding fire. media **Unsuitable extinguishing** : None known. media Specific hazards arising : Contains gas under pressure. Extremely flammable gas. In a fire or if heated, a from the chemical pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Hazardous thermal : Decomposition products may include the following materials: carbon dioxide decomposition products carbon monoxide **Special protective actions** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable for fire-fighters training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk. If this is impossible, withdraw from area and allow fire to burn. Fight fire from protected location or maximum possible distance. Eliminate all ignition sources if safe to do so. : Fire-fighters should wear appropriate protective equipment and self-contained breathing **Special protective** apparatus (SCBA) with a full face-piece operated in positive pressure mode. equipment for fire-fighters

Section 6. Accidental release measures

Personal precautions, protect	ive equipmen	t and emergency proce	<u>dures</u>			
For non-emergency personnel	involving an Keep unnec sources. No adequate ve	y personal risk or withou essary and unprotected o flares, smoking or flam	re or explosion hazard. t suitable training. Evacu personnel from entering. es in hazard area. Avoid ate respirator when venti quipment.	ate surroun Shut off all breathing g	ding areas. ignition gas. Provide	è
For emergency responders		on suitable and unsuitat	leal with the spillage, tak le materials. See also th			
Date of issue/Date of revision	: 2/20/2015.	Date of previous issue	: No previous validation.	Version	: 0.01	3/12

Section 6. Accidental release measures

Environmental precautions	1	Ensure emergency procedures to deal with accidental gas releases are in place to avoid
		contamination of the environment. Inform the relevant authorities if the product has
		caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill	Immediately contact emergency personnel. tools and explosion-proof equipment.	Stop leak if without risk.	Use spark-proof
Large spill	Immediately contact emergency personnel.	Stop leak if without risk.	Use spark-proof

tools and explosion-proof equipment. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Control parameters

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	: Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Eliminate all ignition sources. Keep container tightly closed and sealed until ready for use. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F).

Section 8. Exposure controls/personal protection

Occupational exposure lin	<u>nits</u>				
None.					
Appropriate engineering controls	other engine recommend	eering controls to keep v led or statutory limits. T st concentrations below	Use process enclosures, vorker exposure to airborr he engineering controls a any lower explosive limits	ne contaminar Iso need to ke	nts below any ep gas,
Environmental exposure controls	they comply cases, fume	/ with the requirements o	process equipment should of environmental protection gineering modifications to ns to acceptable levels.	n legislation.	In some
Date of issue/Date of revision	: 2/20/2015.	Date of previous issue	: No previous validation.	Version : 0.	.01 4/12

Section 8. Exposure controls/personal protection

•	• •
Individual protection measu	res
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin protection	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Gas.
Color	: Not available.
Melting/freezing point	 -102.7°C (-152.9°F) This is based on data for the following ingredient: Methyl Acetylene. Weighted average: -172.72°C (-278.9°F)
Critical temperature	: Lowest known value: 32.35°C (90.2°F) (ethane).
Odor	: Not available.
Odor threshold	: Not available.
рН	Not available.
Flash point	: Not available.
Burning time	: Not applicable.
Burning rate	: Not applicable.
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Highest known value: 2 (Air = 1) (Isobutane). Weighted average: 1.53 (Air = 1)
Date of issue/Date of revision	: 2/20/2015. Date of previous issue : No previous validation. Version : 0.01 5/12

Section 9. Physical and chemical properties

Gas Density (lb/ft ³)	: Weighted average: 0.11
Relative density	: Not applicable.
Solubility	: Not available.
Solubility in water	: Not available.
Partition coefficient: n- octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
SADT	: Not available.
Viscosity	: Not applicable.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatibility with various substances	: Extremely reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Date of previous issue

Version : 0.01 : No previous validation.

6/12

Section 11. Toxicological information

	<u> </u>
Teratogenicity Not available.	
<u>Specific target organ toxici</u> Not available.	<u>ty (single exposure)</u>
Specific target organ toxici Not available.	<u>ty (repeated exposure)</u>
Aspiration hazard Not available.	
Information on the likely routes of exposure	: Not available.
Potential acute health effect	<u>s</u>
Eye contact	: Contact with rapidly expanding gas may cause burns or frostbite.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Contact with rapidly expanding gas may cause burns or frostbite.
Ingestion	: As this product is a gas, refer to the inhalation section.
	vsical, chemical and toxicological characteristics
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact Ingestion	No specific data.No specific data.
Short term exposure	cts and also chronic effects from short and long term exposure
Potential immediate effects	: Not available.
Potential delayed effects Long term exposure	: Not available.
Potential immediate effects	: Not available.
Potential delayed effects Potential chronic health eff	: Not available.
Not available.	
General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.
Numerical measures of toxic	<u>zity</u>
Acute toxicity estimates Not available.	
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Flammable Gas Mixture: 1,3-Butadiene / Cyclopropane / Ethane / Isobutane / Isobutylene / Methyl Acetylene / Propadiene / Propane / Propylene

Section 11. Toxicological information

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition: Not available.coefficient (Koc)

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Empty Airgas-owned pressure vessels should be returned to Airgas. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

DOT	TDG	Mexico	IMDG	ΙΑΤΑ
UN1954	UN1954	UN1954	UN1954	UN1954
COMPRESSED GAS, FLAMMABLE, N.O.S. (propylene, propane)	COMPRESSED GAS, FLAMMABLE, N.O.S. (propylene, propane)	COMPRESSED GAS, FLAMMABLE, N.O.S. (propylene, propane)	COMPRESSED GAS, FLAMMABLE, N.O.S. (propylene, propane)	COMPRESSED GAS, FLAMMABLE, N.O.S. (propylene, propane)
2.1	2.1	2.1	2.1	2.1
-	-	-	-	-
No.	No.	No.	No.	No.
	UN1954 COMPRESSED GAS, FLAMMABLE, N.O.S. (propylene, propane) 2.1	UN1954 UN1954 COMPRESSED GAS, FLAMMABLE, N.O.S. (propylene, propane) COMPRESSED GAS, FLAMMABLE, N.O.S. (propylene, propane) 2.1 2.1 Image: Complex	UN1954 UN1954 UN1954 COMPRESSED GAS, FLAMMABLE, N.O.S. (propylene, propane) COMPRESSED GAS, FLAMMABLE, N.O.S. (propylene, propane) COMPRESSED GAS, FLAMMABLE, N.O.S. (propylene, propane) 2.1 2.1 Image: Complex state 2.	UN1954 UN1954 UN1954 UN1954 COMPRESSED GAS, FLAMMABLE, N.O.S. (propylene, propane) 2.1 2.1 2.1 2 2 2 - - -

Section 14. Transport information

Section 14. Transport information

Additional	Reportable quantity	Explosive Limit and	-	-	-
information	10010 lbs / 4544.5 kg	Limited Quantity			
mormation	Package sizes shipped	Index			
	in quantities less than	0.125			
	the product reportable				
	quantity are not subject	ERAP Index			
	to the RQ (reportable	3000			
	quantity) transportation				
	requirements.	Passenger Carrying			
		Ship Index			
		Forbidden			
		Passenger Carrying			
		Road or Rail Index			
		Forbidden			

"Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product."

Special precautions for user	:	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

Section 15. Regulatory information

U.S. Federal regulations	TSCA 8(a) CDR Exempt/Partial exemption: Not determined	
	United States inventory (TSCA 8b): All components are listed or exemp	oted.
	Clean Air Act (CAA) 112 regulated flammable substances : propane; is Methyl Acetylene; propylene; ethane; Isobutane; 1,2-Propadiene	sobutylene;
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	Not listed	
Clean Air Act Section 602 Class I Substances	Not listed	
Clean Air Act Section 602 Class II Substances	Not listed	
DEA List I Chemicals (Precursor Chemicals)	Not listed	
DEA List II Chemicals (Essential Chemicals)	Not listed	
<u>SARA 302/304</u>		
Composition/information	ingredients	
No products were found.		
SARA 304 RQ	Not applicable.	
<u>SARA 311/312</u>		
Classification	Fire hazard Sudden release of pressure	
Composition/information	ingredients	
No products were found.		
<u>SARA 313</u>		
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Section 15. Regulatory information

	Product name	CAS number	%
Form R - Reporting requirements	propylene	115-07-1	0.0001 - 99
Supplier notification	propylene	115-07-1	0.0001 - 99

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations	
Massachusetts	 The following components are listed: PROPANE; 2-METHYLPROPENE; PROPYNE; PROPYLENE (PROPENE); ETHANE; ISOBUTANE
New York	: None of the components are listed.
New Jersey	 The following components are listed: PROPANE; ISOBUTYLENE; 1-PROPENE, 2-METHYL-; METHYL ACETYLENE; 1-PROPYNE; PROPYLENE; 1-PROPENE; ETHANE; Isobutane; PROPANE, 2-METHYL-; PROPADIENE; 1,2-PROPADIENE
Pennsylvania	 The following components are listed: PROPANE; 1-PROPENE, 2-METHYL-; 1-PROPYNE; 1-PROPENE; ETHANE; PROPANE, 2-METHYL-

California Prop. 65

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer. **WARNING:** This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name		Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
1,3-butadiene		Yes.	Yes.	Yes.	No.
Canada inventory International regulations	: All com	ponents are li	sted or exempted.		
International lists	China i Japan i Korea i Malays New Ze Philipp	nventory (IEC nventory: All nventory: All ia Inventory (aland Inventory) ines inventor	CSC): Not determine components are list components are list (EHS Register): Not ory of Chemicals (I	ed or exempted. ed or exempted. determined. NZIOC) : All components ponents are listed or exe	are listed or exempted.
Chemical Weapons Convention List Schedule I Chemicals	: Not liste	ed			
Chemical Weapons Convention List Schedule II Chemicals	: Not liste	ed			
Chemical Weapons Convention List Schedule III Chemicals	: Not liste	ed			
<u>Canada</u> WHMIS (Canada)	Class B-	Compressed 1: Flammable 2B: Material o		ffects (Toxic).	

Flammable Gas Mixture: 1,3-Butadiene / Cyclopropane / Ethane / Isobutane / Isobutylene / Methyl Acetylene / Propadiene / Propane / Propylene

Section 15. Regulatory information

CEPA Toxic substances: The following components are listed: Volatile organic compounds Canadian ARET: None of the components are listed. Canadian NPRI: The following components are listed: Propane; Butene (all isomers); Propylene; Volatile organic compounds; Butane (all isomers) Alberta Designated Substances: None of the components are listed. Ontario Designated Substances: None of the components are listed. Quebec Designated Substances: None of the components are listed.

Section 16. Other information

Canada Label requirements

: Class A: Compressed gas. Class B-1: Flammable gas. Class D-2B: Material causing other toxic effects (Toxic).

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

<u>History</u>

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Date of issue/Date of revision	: 2/20/2015.
Date of previous issue	: No previous validation.
Version	: 0.01

Date of issue/Date of revision	: 2/20/2015.	Date of previous issue	: No previous validation.	Version : 0.01	11/12
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Section 16. Other information

Key to abbreviations	: ATE = Acute Toxicity Estimate
	BCF = Bioconcentration Factor
	GHS = Globally Harmonized System of Classification and Labelling of Chemicals
	IATA = International Air Transport Association
	IBC = Intermediate Bulk Container
	IMDG = International Maritime Dangerous Goods
	LogPow = logarithm of the octanol/water partition coefficient
	MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships,
	1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
	UN = United NationsACGIH – American Conference of Governmental Industrial
	Hygienists
	AIHA – American Industrial Hygiene Association
	CAS – Chemical Abstract Services
	CEPA – Canadian Environmental Protection Act
	CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
	(EPA)
	CFR – United States Code of Federal Regulations
	CPR – Controlled Products Regulations
	DSL – Domestic Substances List
	GWP – Global Warming Potential
	IARC – International Agency for Research on Cancer
	ICAO – International Civil Aviation Organisation
	Inh – Inhalation
	LC – Lethal concentration
	LD – Lethal dosage
	NDSL – Non-Domestic Substances List
	NIOSH – National Institute for Occupational Safety and Health
	TDG – Canadian Transportation of Dangerous Goods Act and Regulations
	TLV – Threshold Limit Value
	TSCA – Toxic Substances Control Act
	WEEL – Workplace Environmental Exposure Level
	WHMIS – Canadian Workplace Hazardous Material Information System
References	: Not available.

V Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Date of issue/Date of revision : 2/20/2015. Date of previous issue : No previous v	lidation. Version : 0.01 12/12
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