SAFETY DATA SHEET



Halocarbon R-11 (Bulk)

Section 1. Identification

GHS product identifier

: Halocarbon R-11 (Bulk): trichlorofluoromethane

Chemical name
Other means of

identification

: Aspen R-11; methane, trichlorofluoro-; monofluorotrichloromethane; trichlorofluoromethane; trichlorofluoro methane; freon 11; refrigerant 11; f-11; genetron

11; freon mf; nci-c04637; trichloromonofluoromethane; cfc-11; cfc 11; propellent 11;

frigen 11; halon 11; fc 11; khaladon 11; kaltron 11; isotron 11; eskimon 11

Product use

: Synthetic/Analytical chemistry.

Synonym

: Aspen R-11; methane, trichlorofluoro-; monofluorotrichloromethane;

trichlorofluoromethane; trichlorofluoro methane; freon 11; refrigerant 11; f-11; genetron 11; freon mf; nci-c04637; trichloromonofluoromethane; cfc-11; cfc 11; propellent 11; frigen 11; halon 11; fc 11; khaladon 11; kaltron 11; isotron 11; eskimon

11

SDS#

: 001197

Supplier's details

: Refrigerant Gas Supplies Ltd1 CLIFFE VILLAS,MICKLEFIELD, ENGLAND,

LEEDS, LS25 4BTs, Inc.

Emergency telephone number (with hours of

operation)

: +44 841 734 7446

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

: HAZARDOUS TO THE OZONE LAYER - Category 1

GHS label elements

Hazard pictograms :



Signal word

: Warning

Hazard statements

: May displace oxygen and cause rapid suffocation.

Harms public health and the environment by destroying ozone in the upper atmosphere.

Precautionary statements

General

: Read label before use. Keep out of reach of children. If medical advice is needed,

have product container or label at hand.

Prevention

: Use and store only outdoors or in a well ventilated place.

Response Storage Not applicable.Not applicable.

Disposal

: Refer to manufacturer/supplier for information on recovery/recycling.

Hazards not otherwise

classified

: None known.

Date of issue/Date of revision : 6/2/2015. Date of previous issue : 6/2/2015. Version : 0.02 1/12

Section 3. Composition/information on ingredients

Substance/mixture

: Substance

Chemical name

trichlorofluoromethane

Other means of identification

: Aspen R-11; methane, trichlorofluoro-; monofluorotrichloromethane; trichlorofluoromethane; trichlorofluoro methane; freon 11; refrigerant 11; f-11; genetron 11; freon mf; nci-c04637; trichloromonofluoromethane; cfc-11; cfc 11; propellent 11; frigen 11; halon 11; fc 11; khaladon 11; kaltron 11; isotron 11; eskimon 11

CAS number/other identifiers

CAS number : 75-69-4 **Product code** : 001197

Ingredient name	%	CAS number
Methane, trichlorofluoro-	100	75-69-4

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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact

: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may

be delayed following exposure.

Skin contact: No known significant effects or critical hazards.

Date of issue/Date of revision : 6/2/2015. Date of previous issue : 6/2/2015. Version : 0.02 2/12

Section 4. First aid measures

Frostbite : Try to warm up the frozen tissues and seek medical attention.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician

: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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

media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing

media

: None known.

Specific hazards arising from the chemical

Hazardous thermal decomposition products

: In a fire or if heated, a pressure increase will occur and the container may burst.

 Decomposition products may include the following materials: carbon dioxide carbon monoxide

halogenated compounds carbonyl halides

Special protective actions for fire-fighters

: 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 training.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:

: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Date of issue/Date of revision: 6/2/2015.Date of previous issue: 6/2/2015.Version: 0.023/12

Section 6. Accidental release measures

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Refer to special instructions/safety data sheet. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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.

including any incompatibilities

Conditions for safe storage, : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name			Exposure limits		
Methane, trichlorofluoro-			ACGIH TLV (United States, 3/2012). C: 5620 mg/m³ C: 1000 ppm NIOSH REL (United States, 1/2013). CEIL: 5600 mg/m³ CEIL: 1000 ppm OSHA PEL (United States, 6/2010). TWA: 5600 mg/m³ 8 hours. TWA: 1000 ppm 8 hours. OSHA PEL 1989 (United States, 3/1989).		9).
Date of issue/Date of revision	: 6/2/2015.	Date of previous issue	: 6/2/2015.	Version : 0.02	4/12

Section 8. Exposure controls/personal protection

CEIL: 5600 mg/m³ CEIL: 1000 ppm

Appropriate engineering controls

Environmental exposure controls

 Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

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 sideshields.

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.

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

Appearance

Physical state : Liquid. [COLORLESS LIQUID OR GAS WITH A CHLORINATED SOLVENT ODOR

WHICH IS DETECTABLE >20 % BY VOLUME]

Color : Colorless.

Molecular weight : 137.36 g/mole

Molecular formula : C-Cl3-F

Boiling/condensation point : 23.7°C (74.7°F)

Melting/freezing point : -111°C (-167.8°F)

Critical temperature : 198°C (388.4°F)

Date of issue/Date of revision

: 6/2/2015. Date of previous issue

: 6/2/2015.

Version : 0.02

5/12

Section 9. Physical and chemical properties

Characteristic. Not available. **Odor threshold** pH : Not available.

Flash point : [Product does not sustain combustion.]

Burning time : Not applicable. **Burning rate** : Not applicable.

Evaporation rate : 19.4 (butyl acetate = 1)

Flammability (solid, gas) : Not available. Lower and upper explosive : Not available.

(flammable) limits

: @ 70°F (21.1°C) 12.3 psia (85 kPa) Vapor pressure

Vapor density 4.7 (Air = 1)Specific Volume (ft 3/lb) 2.5907 Gas Density (lb/ft 3) : 0.386 **Relative density** 1.49

Solubility : Not available.

Solubility in water : 1 g/l Partition coefficient: n-: 2.53

octanol/water

: Not available. **Auto-ignition temperature Decomposition temperature**: Not available. **SADT** : Not available. **Viscosity** : Not available.

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 : No specific data.

Incompatibility with various substances

: Highly reactive or incompatible with the following materials: organic materials and acids.

Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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

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

Date of issue/Date of revision Version 6/12 : 6/2/2015 Date of previous issue : 6/2/2015. : 0.02

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Methane, trichlorofluoro-	LC50 Inhalation Gas.	Rat	104800 ppm	1 hours

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

: Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may

be delayed following exposure.

Skin contactIngestionNo known significant effects or critical hazards.No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

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

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate : Not available.

effects

Date of issue/Date of revision : 6/2/2015. Date of previous issue : 6/2/2015. Version : 0.02 7/12

Section 11. Toxicological information

Potential delayed effects :

: Not available.

Long term exposure

Potential immediate

.

: Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

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 toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Methane, trichlorofluoro-	2.53	-	low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

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. 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

Date of issue/Date of revision : 6/2/2015. Date of previous issue : 6/2/2015. Version : 0.02 8/12

Section 13. Disposal considerations

safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

	Ingredient	CAS#		Reference number
Ĭ	Trichloromonofluoromethane; Methane, trichlorofluoro-	75-69-4	Listed	U121

Section 14. Transport information

	DOT	TDG	Mexico	IMDG	IATA
UN number	UN3082	UN3082	UN3082	UN3082	UN3082
UN proper shipping name	Environmentally Hazardous Substances, Liquid, n.o.s. (Trichlorofluoromethane)	Environmentally Hazardous Substances, Liquid, n.o.s. (Trichlorofluoromethane)	Environmentally Hazardous Substances, Liquid, n.o.s. (Trichlorofluoromethane)	Environmentally Hazardous Substances, Liquid, n.o.s. (Trichlorofluoromethane)	Environmentally Hazardous Substances, Liquid, n.o.s. (Trichlorofluoromethane)
Transport hazard class(es)	9	9 MAGINE POLIUTANT	9	9	9
Packing group	III	III	III	III	III
Environment	Yes.	Yes.	Yes.	Yes.	Yes.
Additional information	Non-bulk packages of this product are not regulated as hazardous materials in package sizes less than the product reportable quantity, unless transported by inland waterway. The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or ≤5 kg. Reportable quantity 5000 lbs / 2270 kg [1553.6 gal / 5880.8 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.	The product is not regulated as a dangerous good when transported by road or rail. Explosive Limit and Limited Quantity Index 5	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

[&]quot;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.

: 6/2/2015. Date of issue/Date of revision : 6/2/2015. Version 9/12 Date of previous issue : 0.02

Section 14. Transport information

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

TSCA 12(b) annual export notification: trichlorofluoromethane

United States inventory (TSCA 8b): This material is listed or exempted.

Clean Air Act Section 112

(b) Hazardous Air **Pollutants (HAPs)** : Not listed

Clean Air Act Section 602

Class I Substances

: Listed

Clean Air Act Section 602

Class II Substances

: Not listed

DEA List I Chemicals

: Not listed

(Precursor Chemicals)

DEA List II Chemicals

: Not listed

(Essential Chemicals)

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Not applicable. **Composition/information on ingredients**

No products were found.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	trichlorofluoromethane	75-69-4	100
Supplier notification	trichlorofluoromethane	75-69-4	100

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 : This material is listed. **New York** : This material is listed. **New Jersey** : This material is listed. **Pennsylvania** : This material is listed.

Canada inventory : This material is listed or exempted.

International regulations

Date of issue/Date of revision 10/12 : 6/2/2015 Date of previous issue : 6/2/2015. Version : 0.02

Section 15. Regulatory information

International lists

: Australia inventory (AICS): This material is listed or exempted.

China inventory (IECSC): This material is listed or exempted.

Japan inventory: This material is listed or exempted.

Korea inventory: This material is listed or exempted.

Malaysia Inventory (EHS Register): Not determined.

New Zealand Inventory of Chemicals (NZIoC): This material is listed or exempted.

Philippines inventory (PICCS): This material is listed or exempted.

Taiwan inventory (CSNN): Not determined.

Chemical Weapons

Convention List Schedule

I Chemicals

Chemical Weapons

Convention List Schedule

II Chemicals

Chemical Weapons

Convention List Schedule

III Chemicals

: Not listed

: Not listed

: Not listed

Canada

WHMIS (Canada) : Not controlled under WHMIS (Canada).

CEPA Toxic substances: This material is listed. **Canadian ARET**: This material is not listed. **Canadian NPRI**: This material is listed.

Alberta Designated Substances: This material is not listed.

Ontario Designated Substances: This material is not listed.

Quebec Designated Substances: This material is not listed.

Section 16. Other information

Canada Label requirements : Not controlled under WHMIS (Canada).

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.)



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Date of issue/Date of revision : 6/2/2015. Date of previous issue : 6/2/2015. Version : 0.02 11/12

Section 16. Other information

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.

History

Date of printing : 6/2/2015.

Date of issue/Date of : 6/2/2015.

revision

Date of previous issue : 6/2/2015.

Version : 0.02

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.

▼ Indicates information that has changed from previously issued version.

Other special considerations

: WARNING: Contains (Trichlorofluoromethane), a substance which harms the public

health and environment by destroying ozone in the upper atmosphere.

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 : 6/2/2015. Date of previous issue : 6/2/2015. Version : 0.02 12/12