SAFETY DATA SHEET

Nonflammable Gas Mixture: Carbon Tetrachloride / Chloroform / Methyl Chloride / Methylene Chloride / Nitrogen

Section 1. Identification

GHS product identifier : Nonflammable Gas Mixture: Carbon Tetrachloride / Chloroform / Methyl Chloride / Methylene Chloride / Nitrogen

Other means of identification : Not available.

Product use : Synthetic/Analytical chemistry.

SDS # : 017905

Supplier's details : Airgas USA, LLC and its affiliates
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253

24-hour telephone : 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 : GASES UNDER PRESSURE - Compressed gas
CARCINOGENICITY - Category 2
HAZARDOUS TO THE OZONE LAYER - Category 1

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.
Suspected of causing cancer.
Harms public health and the environment by destroying ozone in the upper atmosphere.

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.

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing.

Response : IF exposed or concerned: Get medical attention.

Storage : Store locked up. Protect from sunlight when ambient temperature exceeds 52°C/125°F. Store in a well-ventilated place.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations. Refer to manufacturer/supplier for information on recovery/recycling.

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 : Mixture

Other means of identification : Not available.

CAS number/other identifiers

CAS number : Not applicable.

Product code : 017905

Ingredient name	%	CAS number
Nitrogen	98 - 99	7727-37-9
carbon tetrachloride	0.1 - 0.5	56-23-5
trichloromethane	0.1 - 0.5	67-66-3
chloromethane	0.1 - 0.5	74-87-3
dichloromethane	0.1 - 0.5	75-09-2

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

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 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. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

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

Most important symptoms/effects, acute and delayed

Potential acute health effects

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.

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

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

Section 4. First aid measures

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

Hazardous thermal decomposition products : Decomposition products may include the following materials:
nitrogen oxides

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. 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.

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. Avoid breathing gas. 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".

Environmental precautions : 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). May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Small spill : Immediately contact emergency personnel. Stop leak if without risk.

Large spill : Immediately contact emergency personnel. Stop leak if without risk. 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). Contains gas under pressure. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Avoid breathing gas. Avoid release to the environment. Refer to special instructions/safety data sheet. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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). Store locked up. 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

Control parameters

Occupational exposure limits

Nitrogen	Oxygen Depletion [Asphyxiant]
carbon tetrachloride	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** TWA: 5 ppm 8 hours. TWA: 31 mg/m³ 8 hours. STEL: 10 ppm 15 minutes. STEL: 63 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 2 ppm 8 hours. TWA: 12.6 mg/m³ 8 hours. **OSHA PEL Z2 (United States, 2/2013).** TWA: 10 ppm 8 hours. CEIL: 25 ppm AMP: 200 ppm 5 minutes. **NIOSH REL (United States, 10/2013).** STEL: 2 ppm 60 minutes. STEL: 12.6 mg/m³ 60 minutes.
trichloromethane	**ACGIH TLV (United States, 3/2016).** TWA: 49 mg/m³ 8 hours. TWA: 10 ppm 8 hours. **NIOSH REL (United States, 10/2013).** STEL: 9.78 mg/m³ 60 minutes. STEL: 2 ppm 60 minutes. **OSHA PEL (United States, 2/2013).** CEIL: 240 mg/m³ CEIL: 50 ppm **OSHA PEL 1989 (United States, 3/1989).** TWA: 9.78 mg/m³ 8 hours. TWA: 2 ppm 8 hours.
chloromethane	**ACGIH TLV (United States, 3/2016).** **Absorbed through skin.** TWA: 50 ppm 8 hours.

Section 8. Exposure controls/personal protection

	TWA: 103 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 207 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 50 ppm 8 hours. TWA: 105 mg/m³ 8 hours. STEL: 100 ppm 15 minutes. STEL: 210 mg/m³ 15 minutes. **OSHA PEL Z2 (United States, 2/2013).** TWA: 100 ppm 8 hours. CEIL: 200 ppm AMP: 300 ppm 5 minutes.
dichloromethane	**ACGIH TLV (United States, 3/2016).** TWA: 174 mg/m³ 8 hours. TWA: 50 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 125 ppm 15 minutes. TWA: 25 ppm 8 hours. **OSHA PEL Z2 (United States, 2/2013).** STEL: 125 ppm 15 minutes. TWA: 25 ppm 8 hours.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : 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 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.

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	:	Gas.
Color	:	Not available.
Melting/freezing point	:	-210.01°C (-346°F) This is based on data for the following ingredient: nitrogen.
Critical temperature	:	Lowest known value: -146.95°C (-232.5°F) (nitrogen).
Odor	:	Not available.
Odor threshold	:	Not available.
pH	:	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: 0.97 (Air = 1) (nitrogen).
Gas Density (lb/ft ^{3})	:	Only known value: 0.072 (nitrogen).
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	:	No specific data.
Incompatible materials	:	No specific data.
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

Product/ingredient name	Result	Species	Dose	Exposure
carbon tetrachloride	LC50 Inhalation Gas.	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Dermal	Rat	5070 mg/kg	-
	LD50 Oral	Rat	2350 mg/kg	-
trichloromethane	LC50 Inhalation Gas.	Rat	19470 ppm	1 hours
	LC50 Inhalation Vapor	Rat	47702 mg/m³	4 hours
	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	300 mg/kg	-
chloromethane	LC50 Inhalation Gas.	Rat	8300 ppm	4 hours
dichloromethane	LC50 Inhalation Vapor	Rat	76000 mg/m³	4 hours

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
carbon tetrachloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	0.5 minutes 2200 Micrograms	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	4 milligrams	-
trichloromethane	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
dichloromethane	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	10 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	162 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 810 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
dichloromethane	+	2A	Reasonably anticipated to be a human carcinogen.
chloromethane	-	3	-
trichloromethane	-	2B	Reasonably anticipated to be a human carcinogen.
carbon tetrachloride	-	2B	Reasonably anticipated to be a human carcinogen.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Not available.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
carbon tetrachloride trichloromethane chloromethane	Category 1 Category 2 Category 2	Not determined Not determined Not determined	Not determined Not determined central nervous system (CNS)

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

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.

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 effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

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

Product/ingredient name	Result	Species	Exposure
carbon tetrachloride	Acute EC50 0.246 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Acute EC50 180.54 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute LC50 35000 to 47000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 10400 to 11300 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic EC10 0.0717 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
trichloromethane	Acute EC50 13.3 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Acute EC50 2.803 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute LC50 29 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 13.3 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
	Chronic EC10 3.61 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Chronic NOEC 1.8 mg/l Fresh water	Daphnia - Daphnia magna	21 days
chloromethane	Acute LC50 270000 µg/l Marine water	Fish - Menidia beryllina	96 hours
dichloromethane	Acute EC50 242 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Acute EC50 99000 to 121500 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 329 ppm Marine water	Crustaceans - Americamysis bahia	48 hours
	Acute LC50 220000 to 330000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Chronic NOEC 56000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Nitrogen	0.67	-	low
carbon tetrachloride	2.83	49.9 to 75.1	low
trichloromethane	1.97	690	high
chloromethane	0.91	-	low
dichloromethane	1.25	22.91	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : 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. 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.

Section 14. Transport information

	DOT	TDG	Mexico	IMDG	IATA
UN number	UN1956	UN1956	UN1956	UN1956	UN1956
UN proper shipping name	COMPRESSED GAS, N.O.S. (Chloroform, Nitrogen)	COMPRESSED GAS, N.O.S. (Chloroform, Nitrogen)	COMPRESSED GAS, N.O.S. (Chloroform, Nitrogen)	COMPRESSED GAS, N.O.S. (Chloroform, Nitrogen)	COMPRESSED GAS, N.O.S. (Chloroform, Nitrogen)
Transport hazard class(es)	2.2	2.2	2.2	2.2	2.2
Packing group	-	-	-	-	-
Environment	No.	No.	No.	No.	No.
Additional information	**Reportable quantity** 2000 lbs / 908 kg Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). **Explosive Limit and Limited Quantity Index** 0.125 **Passenger Carrying Road or Rail Index** 75	-	-	-

"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 to Annex II of MARPOL 73/78 and the IBC Code : Not available.

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 exempted.

Clean Water Act (CWA) 307: dichloromethane; chloromethane; trichloromethane; carbon tetrachloride

Clean Water Act (CWA) 311: trichloromethane; carbon tetrachloride

Section 15. Regulatory information

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

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
trichloromethane	0.1 - 0.5	Yes.	10000	803.8	10	0.8

SARA 304 RQ : 2000 lbs / 908 kg

SARA 311/312

Classification : Sudden release of pressure
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Nitrogen	98 - 99	No.	Yes.	No.	No.	No.
carbon tetrachloride	0.1 - 0.5	No.	No.	No.	Yes.	Yes.
trichloromethane	0.1 - 0.5	No.	No.	No.	Yes.	Yes.
chloromethane	0.1 - 0.5	Yes.	Yes.	No.	Yes.	Yes.
dichloromethane	0.1 - 0.5	No.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	dichloromethane trichloromethane carbon tetrachloride	75-09-2 67-66-3 56-23-5	0.1 - 0.5 0.1 - 0.5 0.1 - 0.5
Supplier notification	dichloromethane trichloromethane carbon tetrachloride	75-09-2 67-66-3 56-23-5	0.1 - 0.5 0.1 - 0.5 0.1 - 0.5

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: NITROGEN; NITROGEN (LIQUIFIED)

New York : The following components are listed: Dichloromethane; Methylene chloride; Chloroform; Methane, trichloro-; Carbon tetrachloride; Methane, tetrachloro-

New Jersey : The following components are listed: NITROGEN; METHYLENE CHLORIDE; DICHLOROMETHANE; CHLOROFORM; METHANE, TRICHLORO-; CARBON TETRACHLORIDE; METHANE, TETRACHLORO-

Pennsylvania : The following components are listed: NITROGEN; METHANE, DICHLORO-; METHANE, TRICHLORO-; METHANE, TETRACHLORO-

California Prop. 65

Section 15. Regulatory information

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
dichloromethane	Yes.	No.	200 µg/day (inhalation)	No.
chloromethane	No.	Yes.	No.	No.
trichloromethane	Yes.	Yes.	20 µg/day (ingestion) 40 µg/day (inhalation)	No.
carbon tetrachloride	Yes.	No.	Yes.	No.

International regulations

Montreal Protocol (Annexes A, B, C, E)

Ingredient name	List name	Status
carbon tetrachloride	INTL - Montreal protocol (Annexes A, B, C, E)	Annex B, Group II

International lists

National inventory

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Europe : All components are listed or exempted.

Japan : Not determined.

Malaysia : Not determined.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

Canada

WHMIS (Canada) : Class A: Compressed gas.
Class D-2A: Material causing other toxic effects (Very toxic).

CEPA Toxic substances: The following components are listed: Dichloromethane; Tetrachloromethane; Carbon Tetrachloride
Canadian ARET: None of the components are listed.
Canadian NPRI: None of the components are listed.
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 D-2A: Material causing other toxic effects (Very toxic).

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

Health	*	1
Flammability		0
Physical hazards		3

Section 16. Other information

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.

Procedure used to derive the classification

Classification	Justification
Press. Gas Comp. Gas, H280 Carc. 2, H351 Ozone 1, H420	On basis of test data Calculation method Calculation method

History

Date of printing : 8/4/2016

Date of issue/Date of revision : 8/4/2016

Date of previous issue : No previous validation

Version : 1

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 Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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