



# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>Minimal Expansion Foam</b>	
<b>Other means of identification</b>		
<b>Product code</b>	74077	
<b>Recommended use</b>	Foam insulator and sealant	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Manufactured or sold by:</b>		
<b>Company name</b>	CRC Canada Co.	
<b>Address</b>	2-1246 Lorimar Dr. Mississauga, Ontario L5S 1R2 Canada	
<b>Telephone</b>	905-670-2291	
<b>Website</b>	www.crc-canada.ca	
<b>E-mail</b>	Support.CA@crcindustries.com	
<b>Emergency phone number</b>	24-Hour Emergency (CHEMTREC)	800-424-9300 (Canada) 703-527-3887 (International)

## 2. Hazard(s) identification

<b>Physical hazards</b>	Gases under pressure	Liquefied gas
<b>Health hazards</b>	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, respiratory	Category 1
	Sensitization, skin	Category 1
	Reproductive toxicity	Effects on or via lactation
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, repeated exposure	Category 2
<b>Environmental hazards</b>	Not classified.	
<b>Label elements</b>		



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Contains gas under pressure; may explode if heated. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause harm to breast-fed children. May cause damage to organs through prolonged or repeated exposure.
<b>Precautionary statement</b>	
<b>Prevention</b>	Obtain special instructions before use. Do not breathe mist or vapor. Use only outdoors or in a well-ventilated area. Avoid contact during pregnancy and while nursing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear eye protection/face protection. Wear protective gloves. Wear respiratory protection.

<b>Response</b>	IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. 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 exposed or concerned: Get medical advice/attention.
<b>Storage</b>	Keep container tightly closed. Store locked up. Protect from sunlight. Store in a well-ventilated place.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Other hazards</b>	None known.

#### Supplemental information

When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen fluoride, hydrogen chloride and possibly phosgene.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
diphenylmethanediisocyanate, isomers and homologues		9016-87-9	5 - 10
tris(2-chloroisopropyl) phosphate		13674-84-5	3 - 7
4,4-diphenylmethane diisocyanate (M.D.I.)		101-68-8	1 - 5
trans-1,2-dichloroethylene		156-60-5	1 - 5

The exact percentage (concentration) of composition has been withheld as a trade secret.

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. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.
<b>Most important symptoms/effects, acute and delayed</b>	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. 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>	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Water. 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. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen fluoride, hydrogen chloride and possibly phosgene.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions** In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards** Contents under pressure. Pressurized container may explode when exposed to heat or flame.

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## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. 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** Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. The product is immiscible with water and will sediment in water systems. Absorb in vermiculite, dry sand or earth and place into containers. 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. For waste disposal, see section 13 of the SDS.

**Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

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## 7. Handling and storage

**Precautions for safe handling** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Level 1 Aerosol.

Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

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## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value
4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8)	TWA	0.005 ppm
trans-1,2-dichloroethylene (CAS 156-60-5)	TWA	200 ppm

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

Components	Type	Value
4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8)	TWA	0.05 mg/m <sup>3</sup>
diphenylmethanediisocyanate, isomers and homologues (CAS 9016-87-9)	TWA	0.005 ppm 0.07 mg/m <sup>3</sup>
trans-1,2-dichloroethylene (CAS 156-60-5)	TWA	0.005 ppm 793 mg/m <sup>3</sup>

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

Components	Type	Value
		200 ppm

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

Components	Type	Value
4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8)	Ceiling	0.01 ppm
diphenylmethanediisocyanate, isomers and homologues (CAS 9016-87-9)	TWA	0.005 ppm
	Ceiling	0.01 ppm
trans-1,2-dichloroethylene (CAS 156-60-5)	TWA	0.005 ppm
	TWA	200 ppm

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

Components	Type	Value
4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8)	TWA	0.005 ppm
trans-1,2-dichloroethylene (CAS 156-60-5)	TWA	200 ppm

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

Components	Type	Value
4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8)	Ceiling	0.02 ppm
trans-1,2-dichloroethylene (CAS 156-60-5)	TWA	0.005 ppm
	TWA	200 ppm

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

Components	Type	Value
4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8)	TWA	0.051 mg/m3
trans-1,2-dichloroethylene (CAS 156-60-5)		0.005 ppm
	TWA	793 mg/m3
		200 ppm

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Exposure guidelines**

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

4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8) Can be absorbed through the skin.

**Appropriate engineering controls**

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. Eye wash facilities and emergency shower should be available when handling this product.

**Individual protection measures, such as personal protective equipment**

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

**Skin protection**

**Hand protection** Wear protective gloves such as: Nitrile. Neoprene.

**Other** Wear appropriate chemical resistant clothing. Wear suitable protective clothing.

<b>Respiratory protection</b>	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	When using do not smoke. 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.

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## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Liquid.
<b>Form</b>	Aerosol.
<b>Color</b>	Amber.
<b>Odor</b>	Mild.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	-57.6 °F (-49.8 °C) estimated
<b>Initial boiling point and boiling range</b>	119.7 °F (48.7 °C) estimated
<b>Flash point</b>	None (Tag Closed Cup)
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	9.7 % estimated
<b>Flammability limit - upper (%)</b>	12.8 % estimated
<b>Vapor pressure</b>	2278 hPa estimated
<b>Vapor density</b>	Not available.
<b>Relative density</b>	1.01
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Insoluble.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	860 °F (460 °C) estimated
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Percent volatile</b>	20 % estimated

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## 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>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Heat. When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen fluoride, hydrogen chloride and possibly phosgene. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents. Alkaline metals. Alcohols. Phenols.
<b>Hazardous decomposition products</b>	Hydrogen fluoride. Hydrogen chloride. Hydrogen cyanide (prussic acid). Carbon oxides. Phosgene. Chlorine. Chlorine compounds. Potassium oxide. Isocyanate.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause irritation to the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
<b>Skin contact</b>	Causes skin irritation. May cause an allergic skin reaction.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

### Information on toxicological effects

**Acute toxicity** Not known.

Product	Species	Test Results
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Minimal Expansion Foam

#### Acute

##### **Oral**

ATEmix		2333.7223 mg/kg
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Components	Species	Test Results
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4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8)

#### Acute

##### **Dermal**

LD50	Rabbit	> 5000 mg/kg
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##### **Inhalation**

LC50	Rat	0.38 mg/l, 4 Hours
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##### **Oral**

LD50	Rat	>= 5000 mg/kg
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diphenylmethanediisocyanate, isomers and homologues (CAS 9016-87-9)

#### Acute

##### **Dermal**

LD50	Rabbit	>= 10000 mg/kg
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##### **Inhalation**

LC50	Rat	490 mg/m <sup>3</sup> , 4 hours
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##### **Oral**

LD50	Rat	>= 2000 mg/kg
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trans-1,2-dichloroethylene (CAS 156-60-5)

#### Acute

##### **Oral**

LD50	Rat	1235 mg/kg
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tris(2-chloroisopropyl) phosphate (CAS 13674-84-5)

#### Acute

##### **Dermal**

LD50	Rat	> 5000 mg/kg
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##### **Inhalation**

LC50	Rat	> 4.6 mg/l
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##### **Oral**

LD50	Rat	2800 mg/kg
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\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/eye irritation** Causes serious eye irritation.

## Respiratory or skin sensitization

### Canada - British Columbia OELs: Respiratory or skin sensitizer

4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8) Capable of causing respiratory, dermal or conjunctival sensitization.

### Canada - Quebec OELs: Sensitizer

4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8) Sensitizer.

**Respiratory sensitization** May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
**Skin sensitization** May cause an allergic skin reaction.  
**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

## Carcinogenicity

### IARC Monographs. Overall Evaluation of Carcinogenicity

4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8) 3 Not classifiable as to carcinogenicity to humans.  
diphenylmethanediisocyanate, isomers and homologues (CAS 9016-87-9) 3 Not classifiable as to carcinogenicity to humans.

**Reproductive toxicity** May cause harm to breastfed babies.  
**Specific target organ toxicity - single exposure** May cause respiratory irritation.  
**Specific target organ toxicity - repeated exposure** May cause damage to organs through prolonged or repeated exposure.  
**Aspiration hazard** Not an aspiration hazard.  
**Chronic effects** May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.

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## 12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
trans-1,2-dichloroethylene (CAS 156-60-5)		
<b>Aquatic</b>		
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> ) 120 - 160 mg/l, 96 hours
<i>Acute</i>		
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> ) 220 mg/l, 48 hours

\* Estimates for product may be based on additional component data not shown.

## Persistence and degradability

### Bioaccumulative potential

**Partition coefficient n-octanol / water (log Kow)**  
trans-1,2-dichloroethylene 2.06

**Mobility in soil** No data available.  
**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

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## 13. Disposal considerations

**Disposal of waste from residues / unused products** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.  
**Local disposal regulations** Dispose in accordance with all applicable regulations.  
**Hazardous waste code** Not regulated.  
**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

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## 14. Transport information

### TDG

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	AEROSOLS, non-flammable, Limited Quantity
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.2
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	No.
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	80, 107

### IATA

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, non-flammable, Limited Quantity
<b>Transport hazard class(es)</b>	
<b>Class</b>	2.2
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	No.
<b>ERG Code</b>	2L
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Other information</b>	
<b>Passenger and cargo aircraft</b>	Allowed with restrictions.
<b>Cargo aircraft only</b>	Allowed with restrictions.

### IMDG

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	AEROSOLS, Limited Quantity
<b>Transport hazard class(es)</b>	
<b>Class</b>	2
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not applicable.
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No.
<b>EmS</b>	F-D, S-U
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not established.

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## 15. Regulatory information

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

### **Controlled Drugs and Substances Act**

Not regulated.

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

Not listed.

### **Greenhouse Gases**

Not listed.

### **Precursor Control Regulations**

Not regulated.

### **International regulations**

#### **Stockholm Convention**

Not applicable.

#### **Rotterdam Convention**

Not applicable.

#### **Kyoto protocol**

Not applicable.

**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)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
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).

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**16. Other information****Issue date** 05-23-2017**Version #** 01

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