

SAFETY DATA SHEET

1. Identification

Product identifier Minimal Expansion Foam

Other means of identification

No. 74077 (Item# 1006223) **Product Code** Recommended use Foam insulator and sealant

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

CRC Canada Co. Company name **Address** 83 Galaxy Blvd

Unit 35 - 37

Toronto, ON M9W 5X6

Canada

Telephone

General Information 416-847-7750

24-Hour Emergency

800-424-9300 (Canada)

(CHEMTREC) Website

www.crc-canada.ca

Support.CA@crcindustries.com E-mail

2. Hazard identification

Physical hazards Flammable aerosols Category 1

> Gases under pressure Liquefied gas Acute toxicity, inhalation Category 4 Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2

Sensitization, respiratory Category 1 Sensitization, skin Category 1 Carcinogenicity Category 2

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Category 1

Specific target organ toxicity, repeated

exposure

Environmental hazards Not classified.

Label elements

Health hazards



Signal word Danger

Hazard statement Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Suspected of causing cancer. Causes damage to organs through prolonged or repeated

exposure.

Precautionary statement

Storage

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe mist/vapors. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.

Response 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. 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.

Keep container tightly closed. Store locked up. Protect from sunlight. Store in a well-ventilated

place. Do not expose to temperatures exceeding 50°C/122°F.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards None known.

Supplemental information When exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal

corrosive gases such as hydrogen chloride and possibly phosgene.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
chlorinated paraffins		63449-39-8	15 - 40
polymeric diphenylmethane diisocyanate		9016-87-9	15 - 40
4,4-diphenylmethane diisocyanate (M.D.I.)		101-68-8	7 - 13
isobutane		75-28-5	5 - 10
dimethyl ether		115-10-6	1 - 5
propane		74-98-6	1 - 5
soybean oil		8001-22-7	1 - 5
2,2'-dimorpholinyldiethyl ether		6425-39-4	0.5 - 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

Inhalation 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.

Skin contact 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.

Eye contact 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.

Ingestion In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.

Most important symptoms/effects, acute and

delayed

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.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General informationIF 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

Suitable extinguishing media

Unsuitable extinguishing media

Water. Do not use water jet as an extinguisher, as this will spread the fire.

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Specific hazards arising from

the chemical

Contents under pressure. Pressurized container may rupture when exposed to heat or flame. 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 chloride and possibly phosgene.

Special protective equipment and precautions for firefighters

Fire fighting equipment/instructions

Specific methods

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

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.

Use standard firefighting procedures and consider the hazards of other involved materials. In the

event of fire and/or explosion do not breathe fumes. Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when General fire hazards

exposed to heat or flame.

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/vapors. 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. 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. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Environmental precautions

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

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/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

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

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122°F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in tightly closed container. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US ACGIH Threshold Limit Values

Components	Туре	Value
4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8)	TWA	0.005 ppm

Material name: Minimal Expansion Foam

IIS ACGIH Threshold Limit Value	

Components	Туре	Value	
isobutane (CAS 75-28-5)	STEL	1000 ppm	
Canada. Alberta OELs (Occupatior Components	nal Health & Safety Code, Sch Type	edule 1, Table 2) Value	
4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8)	TWA	0.05 mg/m3	
		0.005 ppm	
polymeric diphenylmethane diisocyanate (CAS 9016-87-9)	TWA	0.07 mg/m3	
		0.005 ppm	
propane (CAS 74-98-6)	TWA	1000 ppm	
Canada. British Columbia OELs. (C Safety Regulation 296/97, as amen	ded)		•
Components	Туре	Value	Form
4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8)	Ceiling	0.01 ppm	
	TWA	0.005 ppm	
dimethyl ether (CAS 115-10-6)	TWA	1000 ppm	
isobutane (CAS 75-28-5)	TWA	1000 ppm	
polymeric diphenylmethane diisocyanate (CAS 9016-87-9)	Ceiling	0.01 ppm	
,	TWA	0.005 ppm	
propane (CAS 74-98-6)	TWA	1000 ppm	
soybean oil (CAS 8001-22-7)	TWA	3 mg/m3	Respirable mist.
		10 mg/m3	Mist.
Canada. Manitoba OELs (Reg. 217/ Components	2006, The Workplace Safety <i>I</i> Type	And Health Act) Value	
4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8)	TWA	0.005 ppm	
isobutane (CAS 75-28-5)	STEL	1000 ppm	
Canada. Ontario OELs. (Control of	Exposure to Biological or Ch	emical Agents)	
Components	Туре	Value	
4,4-diphenylmethane diisocyanate (M.D.I.) (CAS 101-68-8)	Ceiling	0.02 ppm	
	TWA	0.005 ppm	
	STEL	1000 ppm	
isobutane (CAS 75-28-5)	OTEL		
isobutane (CAS 75-28-5) Canada. Quebec OELs. (Ministry o Components		ng occupational health and sa Value	fety) Form
Canada. Quebec OELs. (Ministry o	f Labor - Regulation respectir		

Material name: Minimal Expansion Foam

SDS CANADA

omponents	Туре	Value	Form
opane (CAS 74-98-6)	TWA	1800 mg/m3	
		1000 ppm	
oybean oil (CAS 001-22-7)	TWA	10 mg/m3	Mist.

Components Value Type 4,4-diphenylmethane 15 minute 0.015 ppm diisocyanate (M.D.I.) (CAS 101-68-8) 8 hour 0.005 ppm isobutane (CAS 75-28-5) 15 minute 1250 ppm 8 hour mag 0001 15 minute 1250 ppm propane (CAS 74-98-6)

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.) Can be absorbed through the skin.

8 hour

(CAS 101-68-8)

Appropriate engineering

controls

Good general ventilation 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. General ventilation normally adequate. Provide eyewash station and safety shower.

1000 ppm

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. Rubber gloves.

Other Wear appropriate chemical resistant clothing.

If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a Respiratory protection

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.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. 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. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state Liquid. **Form** Aerosol. Amber. Color Odor Solvent. **Odor threshold** Not available. Not available.

Melting point/freezing point 98.6 °F (37 °C) estimated

Initial boiling point and boiling

range

Not available.

396 °F (202.2 °C) estimated Flash point

Evaporation rate Moderate.

Material name: Minimal Expansion Foam

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

(%)

Flammability limit - upper

Flammability limit - lower

(%)

Not available.

Not available.

Vapor pressure 1298.4 hPa estimated

Vapor density > 1 (air = 1)

Relative density 1.05

Solubility(ies)

Solubility (water) Not available.

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Flammability class Combustible IIIB estimated

Percent volatile 6 % estimated

10. Stability and reactivity

ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. When

exposed to extreme heat or hot surfaces, vapors may decompose to harmful or fatal corrosive gases such as hydrogen chloride and possibly phosgene. Contact with incompatible materials.

Incompatible materials Strong bases. Oxidizing agents.

Hazardous decomposition

products

Carbon oxides. Nitrogen oxides (NOx). Hydrogen chloride. Phosgene.

11. Toxicological information

Information on likely routes of exposure

Inhalation Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin contact Causes skin irritation. May cause an allergic skin reaction.

Eye contact Causes serious eye irritation.

Ingestion 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 Harmful if inhaled.

Components Species Test Results

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

<u>Acute</u> Dermal

LD50 Rabbit > 5000 mg/kg

Inhalation

LC50 Rat 0.38 mg/l, 4 Hours

Oral

LD50 Rat >= 5000 mg/kg

Material name: Minimal Expansion Foam

Components **Species Test Results**

dimethyl ether (CAS 115-10-6)

Acute Inhalation

LC50 Rat 164000 ppm, 4 Hours

308.5 mg/l, 4 hours

isobutane (CAS 75-28-5)

Acute Inhalation

LC50 Rat 142500 ppm, 4 hours

polymeric diphenylmethane diisocyanate (CAS 9016-87-9)

Acute Dermal

LD50 Rabbit >= 10000 mg/kg

Inhalation

LC50 Rat 490 mg/m3, 4 hours

Oral

LD50 Rat >= 2000 mg/kg

Causes skin irritation. Skin corrosion/irritation Serious eye damage/eye Causes serious eye irritation.

irritation

Respiratory or skin sensitization Canada - British Columbia OELs: Respiratory or skin sensitiser

> 4,4-diphenylmethane diisocyanate (M.D.I.) Capable of causing respiratory, dermal or conjunctival

(CAS 101-68-8) sensitization.

polymeric diphenylmethane diisocyanate Capable of causing respiratory, dermal or conjunctival

sensitization. (CAS 9016-87-9)

Canada - Quebec OELs: Sensitizer

4,4-diphenylmethane diisocyanate (M.D.I.) Sensitizer.

(CAS 101-68-8)

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Respiratory sensitization

May cause an allergic skin reaction. Skin sensitization

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

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

chlorinated paraffins (CAS 63449-39-8) 2B Possibly carcinogenic to humans.

polymeric diphenylmethane diisocyanate 3 Not classifiable as to carcinogenicity to humans.

(CAS 9016-87-9)

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

May cause respiratory irritation.

Specific target organ toxicity -

repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful. Causes damage to organs through prolonged or repeated

exposure. Prolonged exposure may cause chronic effects.

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.

3 Not classifiable as to carcinogenicity to humans.

Components **Species Test Results**

chlorinated paraffins (CAS 63449-39-8)

Aquatic

Fish LC50 Bluegill (Lepomis macrochirus) > 0.1 mg/l, 96 hours

No data is available on the degradability of any ingredients in the mixture. Persistence and degradability

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

0.1 dimethyl ether 2.76 isobutane propane 2.36

Mobility in soil No data available.

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation Other adverse effects

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents **Disposal instructions**

under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance

with local/regional/national/international regulations.

Dispose in accordance with all applicable regulations. Local disposal regulations

Since emptied containers may retain product residue, follow label warnings even after container is Contaminated packaging

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal. Do not re-use empty containers.

14. Transport information

TDG

UN1950 **UN number**

AEROSOLS, flammable, Limited Quantity **UN proper shipping name**

Transport hazard class(es)

Class 2.1 Subsidiary risk

Not applicable. Packing group

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Special provisions 80.107

IATA

UN1950 **UN** number

UN proper shipping name Aerosols, flammable, Limited Quantity

Transport hazard class(es)

2.1 Class Subsidiary risk **Environmental hazards** No.

Packing group Not applicable.

ERG Code

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo Allowed with restrictions.

aircraft

Allowed with restrictions. Cargo aircraft only

IMDG

UN1950 **UN** number

UN proper shipping name Aerosols, flammable, Limited Quantity

Transport hazard class(es)

2.1 **Class** Subsidiary risk

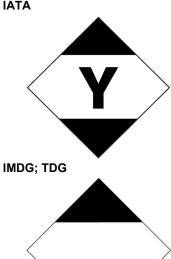
Not applicable. Packing group

Environmental hazards

No. Marine pollutant F-D, S-U

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.





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

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	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)	Yes
New Zealand	New Zealand Inventory	Yes

Country(s) or region Inventory name On inventory (yes/no)*

Philippines Philippine Inventory of Chemicals and Chemical Substances

(PICCS)

Taiwan Taiwan Chemical Substance Inventory (TCSI)

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

 Issue date
 05-23-2017

 Revision date
 01-28-2019

Version # 02

Disclaimer The information contained in this document applies to this specific material as supplied. It may not

be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety

professional, or CRC Canada Co..

Revision information This document has undergone significant changes and should be reviewed in its entirety.

Material name: Minimal Expansion Foam SDS CANADA