XCEL™ EIF

Expanding Insulation Foam Safety Data Sheet

Section 1: Identification

Product Name: Xcel Expanding Insulation Foam

Manufacturer/Supplier: Xcel Products Inc
PO Box 556, 7398 Yonge St,
Unit 6D, Thornhill, ON, L4J 8J2

Contact Phone Number: 1-844-923-5776

Section 2: Hazards Identification

GHS Information

Classification:

Flammable Aerosols, Category 2
Gases Under Pressure - Compressed Gas
Skin Irritation, Category 2
Eye Irritation, Category 2B
Sensitization - Respiratory, Category 1
Sensitization - Skin, Category 1
Toxic to Reproduction, Effects on or via Lactation
Specific Target Organ Toxicity (Single Exposure), Category 3 - Respiratory Irritation
Specific Target Organ Toxicity (Repeated Exposure), Category 2

Label Elements

Hazards:

Danger
Flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes skin irritation.
Causes eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
May cause harm to breast-fed children.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

Prevention:

Obtain special instructions before use.
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 or spray.
Avoid contact during pregnancy and while nursing.
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 and eye protection.
Wear respiratory protection.

Response:

IF ON SKIN: Wash with plenty of water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice/attention.
Call a POISON CENTER or doctor if you feel unwell.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
If experiencing respiratory symptoms: Call a POISON CENTER or doctor. Take off contaminated clothing and wash it before reuse.

Storage:

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.

Disposal:

Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.

Ingredients with Unknown Toxicity:

10% of this product mixture consists of ingredient(s) of unknown acute toxicity.

This material is considered hazardous by the OSHA Hazard Communication Standard, (29 CFR 1910.1200).

This material is considered hazardous by the Hazardous Products Regulations.

Section 3: Composition / Information on Ingredients

Hazardous Ingredients	Common Name	CAS No.	% wt.
Isocyanic acid, polymethylenepolyphenylene ester	Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	35-45
2-Propanol, 1-chloro-, 2,2',2"-phosphate	Tri-(2-chloroisopropyl)phosphate	13674-84-5	10-13
Propane, 2-methyl-	Isobutane	75-28-5	7-11
Methane, 1, 1'-oxybis-	Dimethyl ether	115-10-6	4-9
Ethane, 1, 1-difluoro-	1,1-Difluoroethane: R 152a	75-37-6	4-7
Alkanes, C14-17, chloro		85535-85-9	1-5
Propane		74-98-6	1-5
1,2-Propanediol cyclic carbonate	Propylene carbonate	108-32-7	1-3

Section 4: First–Aid Measures

Inhalation:

If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or doctor.

Acute and delayed symptoms and effects: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Excessive inhalation may cause headache, dizziness, confusion, loss of appetite and/or loss of consciousness. Allergy-prone people who have been sensitized to isocyanates or even have not been previously exposed to isocyanates may experience symptoms at concentrations as low as 0.0014 ppm. Asthma sufferers or people who easily get contact dermatitis should therefore not be exposed to isocyanates. The isocyanate odour does not provide sufficient warning of overexposure due to the high odour thresholds.

Eye Contact:

If in eyes: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Acute and delayed symptoms and effects: Causes eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. PMDI may cause severe watering, formation of solid particles in the eye fluid, glaucoma, photophobia (sensitivity to light), blepharospasm (uncontrollable winking), conjunctivitis (inflammation of the mucous membranes of the eye lids with possible discharge), keratitis (inflammation of the cornea) and damage the cornea (opacity or clouding).

Skin Contact:

Remove the foam from skin using a cloth. Take off immediately all contaminated clothing. Remove uncured foam from skin using delicate solvent like acetone or mineral spirit (avoid contact with eyes). Hardened foam may be removed by persistent washing with soap and large quantities of water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Acute and delayed symptoms and effects: May cause an allergic skin reaction. Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

Prolonged skin contact may cause redness, swelling, blistering and possible skin sensitization (dermatitis). MDI compounds have a mild tanning action on the skin.

Ingestion: If swallowed: Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

General Advice: In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Note to Physicians: Symptoms may not appear immediately.

Section 5: Fire Fighting Measures

Flammability and Explosion Information

Flammable aerosol. Contains gas under pressure; may explode if heated. Containers may explode when heated. Ruptured cylinders may rocket.

Sensitivity to Mechanical Impact: This material is not sensitive to mechanical impact.

Sensitivity to Static Discharge: This material is sensitive to static discharge.

Means of Extinction

Suitable Extinguishing Media: Small Fire: Dry chemical or CO2. Use extinguishing agent suitable for type of surrounding fire.

Large Fire: Water spray, fog or regular foam. Move containers from fire area if you can do it without risk. Damaged cylinders should be handled only by specialists.

Products of Combustion: Oxides of carbon. Oxides of nitrogen. Oxides of phosphorus. Hydrogen chloride. Chlorine. Hydrogen cyanide. Isocyanate vapours. Hydrogen fluoride.

Protection of Firefighters: Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective clothing will only provide limited protection.

Section 6: Accidental Release Measures

Emergency Procedures: As an immediate precautionary measure, isolate spill or leak area. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering. Do not touch or walk through spilled material.

Personal Precautions: Use personal protection recommended in Section 8.

Environmental Precautions: Prevent entry into waterways, sewers, basements or confined areas.

Methods for Containment: Stop leak if you can do it without risk. Do not direct water at spill or source of leak.

Methods for Clean–Up: Remove from surfaces by scraping up excess material and removing residual residue with cloth and solvent such as acetone or mineral spirit, paint thinner, etc. Hardened foam can only be removed physically or mechanically by scraping or buffing.

See Section 13 for disposal considerations.

Section 7: Handling and Storage

Handling: Do not swallow. Do not breathe mist, vapours, or spray. Avoid contact during pregnancy and while nursing. Pressurized container: Do not pierce or burn, even after use. 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. 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. See Section 8 for information on Personal Protective Equipment.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F. Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children.

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines
Component:

Polymeric Methylene Diphenyl Diisocyanate (PMDI) [CAS No. 9016-87-9]
ACGIH: 0.005 ppm (TWA); (1985), For Methylene bisphenyl isocyanate (MDI)
OSHA: 0.02 ppm (C), 0.2 mg/m3 (C); For Methylene bisphenyl isocyanate (MDI)

1,1-Difluoroethane (R 152a) [CAS No. 75-37-6]
ACGIH: No TLV established.
OSHA: No PEL established.

Alkanes, C14-17, chloro [CAS No. 85535-85-9]
ACGIH: No TLV established.
OSHA: No PEL established.

Dimethyl ether [CAS No. 115-10-6]
ACGIH: No TLV established.
OSHA: No PEL established.

Isobutane [CAS No. 75-28-5]
ACGIH: 1000 ppm (STEL); Explosion hazard (2012)
OSHA: No PEL established.

Propane [CAS No. 74-98-6]
ACGIH: 1000 ppm (TWA); (2001)
OSHA: 1000 ppm (TWA), 1800 mg/m3 (TWA)

Propylene carbonate [CAS No. 108-32-7]
ACGIH: No TLV established.
OSHA: No PEL established.

Tri-(2-chloroisopropyl)phosphate [CAS No. 13674-84-5]
ACGIH: No TLV established.
OSHA: No PEL established.

PEL: Permissible Exposure Limit
TLV: Threshold Limit Value
TWA: Time-Weighted Average
C: Ceiling

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapour, gas, etc.) below recommended exposure limits.

Personal Protective Equipment (PPE):

Eye/Face Protection: Wear chemical safety goggles. Ensure that eyewash stations are close to the workstation location. Use equipment for eye protection that meets the standards referenced by CSA Standard CAN/CSA-Z94.3-92 and OSHA regulations in 29 CFR 1910.133 for Personal Protective Equipment.

Hand Protection: Wear protective gloves. Wear cold insulating gloves. Consult manufacturer specifications for further information.

Skin and Body Protection: Wear protective clothing.

Respiratory Protection: Wear respiratory protection. If engineering controls and ventilation are not sufficient to control exposure to below the allowable limits then an appropriate NIOSH/MSHA approved air-purifying respirator that meets the requirements of CSA Standard CAN/CSA-Z94.4-11, or self-contained breathing apparatus must be used. Supplied air breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air-purifying respirators.

General Hygiene: Handle according to established industrial hygiene and safety practices. Consult a competent industrial hygienist to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.

Section 9: Physical and Chemical Properties

Appearance: Rapidly curing foam dispensed by gaseous propellant from an aerosol container.

Colour: Beige

Odour: Characteristic

Physical State: Liquid (aerosol foam)

Flammability: See Section 5

Lower Flammability Limit: 1.8 % (Isobutane)

Upper Flammability Limit: 18 % (1,1-Difluoroethane (R 152a))

Solubilities: Insoluble in water; reacts with water.

Section 10: Stability and Reactivity

Reactivity: Contact with incompatible materials. Sources of ignition. Exposure to heat.

Chemical Stability: Stable under normal storage conditions.

Possibility of Hazardous Reactions: Dimethyl ether can form explosive peroxides under the influence of light and air.

Conditions to avoid: Contact with incompatible materials. Sources of ignition. Exposure to heat.

Incompatible Materials: Acids. Bases. Oxidizers. Reducers. Alkali metals. Metals. Amines. Alcohols. Epoxides

Hazardous Decomposition Products: Isocyanate vapours. Carbon dioxide.

Section 11: Toxicological Information

Effects of Acute Exposure
Component Toxicity

Component	CAS No.	LD50 oral	LD50 dermal	LC50
Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	49000 mg/kg (rat)	> 9400 mg/kg (rabbit)	490 mg/m3 (rat); 4H
1,1-Difluoroethane: R 152a	75-37-6	NA	NA	977000 mg/m3 (rat); 2H
Isobutane	75-28-5	NA	NA	570000 ppm (rat); 15M
Alkanes, C14-17, chloro	85535-85-9	NA	NA	NA
Dimethyl ether	115-10-6	NA	NA	308000 mg/m3 (rat);
Tri-(2-chloroisopropyl)phosphate	13674-84-5	1500 mg/kg (rat)	NA	NA
Propane	74-98-6	NA	NA	NA
Propylene Carbonate	108-32-7	29000 mg/kg (rat)	> 20mL/kg (rabbit)	NA

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion.

Target organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs. Cardiovascular system. Central nervous system.

Symptoms (including delayed and immediate effects)

Inhalation: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Excessive inhalation may cause headache, dizziness, confusion, loss of appetite and/or loss of consciousness. Allergy-prone people who have been sensitized to isocyanates or even have not been previously exposed to isocyanates may experience symptoms at concentrations as low as 0.0014 ppm. Asthma sufferers or people who easily get contact dermatitis should therefore not be exposed to isocyanates. The isocyanate odour does not provide sufficient warning of overexposure due to the high odour thresholds.

Eye: Causes eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. PMDI may cause severe watering, formation of solid particles in the eye fluid, glaucoma, photophobia (sensitivity to light), blepharospasm (uncontrollable winking), conjunctivitis (inflammation of the mucous membranes of the eye lids with possible discharge), keratitis (inflammation of the cornea) and damage the cornea (opacity or clouding).

Skin: May cause an allergic skin reaction. Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching. Prolonged skin contact may cause redness, swelling, blistering and possible skin sensitization (dermatitis). MDI compounds have a mild tanning action on the skin.

Ingestion: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Skin Sensitization: Hazardous by OSHA/WHMIS criteria. May cause sensitization through skin contact.

Respiratory Sensitization: Hazardous by OSHA/WHMIS criteria. May cause sensitization through inhalation. Allergy-prone people who have been sensitized to isocyanates or even have not been previously exposed to isocyanates may experience symptoms at concentrations as low as 0.0014 ppm. Asthma sufferers or people who easily get contact dermatitis should therefore not be exposed to isocyanates.

Effects of Chronic Exposure

Target Organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs. Cardiovascular system. Central nervous system.

Chronic Effects: Prolonged or repeated contact may dry skin and cause irritation.

Carcinogenicity: Product is not classified as a carcinogen. See Component Carcinogenicity table below for information on individual components.

Component Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Prop 65
Polymeric Methylene Diphenyl Diisocyanate (PMDI)	Not Listed	Group 3	Not Listed	Not Listed	Not Listed

Mutagenicity: Not available

Reproductive Effects: May cause harm to breast-fed children. Avoid contact during pregnancy and while nursing. Possible risk of impaired fertility.

Developmental Effects Teratogenicity: Not available

Embryotoxicity: Not available

Toxicologically Synergistic Materials: Not available

Section 12: Ecological Information

Ecotoxicity: Not available

Persistence/Degradability: Not available

Bioaccumulation/Accumulation: Not available

Mobility in Environment: Not available

Other Adverse Effects: Not available

Section 13: Disposal Considerations

Disposal Instructions: Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

Section 14: Transport Information

U.S. Department of Transportation (DOT)

Proper Shipping Name: UN1950, AEROSOLS, 2.1

Class: 2.1

UN Number: UN1950

Packing Group: N/A

Label Code:

Canada Transportation of Dangerous Goods (TDG)

Proper Shipping Name: UN1950, AEROSOLS, 2.1

Class: 2.1

UN Number: UN1950

Packing Group: N/A

Label Code:

Section 15: Regulatory Information

United States

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SARA Title III

Component	Section 302 (EHS) TPQ (lbs.)	Section 304 (EHS) RQ (lbs.)	CERCLA RQ (lbs.)	Section 313	RCRA Code	CAA 112 (r) TQ (lbs.)
Polymeric Methylene Diphenyl Diisocyanate (PMDI)	Not Listed	Not Listed	Not Listed	313#	Not Listed	Not Listed
1,1-Difluoroethane	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	10000
Isobutane	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	10000
Dimethyl ether	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	10000
Propane	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	10000

State Regulations

Massachusetts

US Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

Component	CAS no.	RTK List
Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	Listed
1,1-Difluoroethane	75-37-6	Listed
Isobutane	75-28-5	Listed
Dimethyl ether	115-10-6	Listed
Propane	74-98-6	Listed

New Jersey

US New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

Component	CAS no.	RTK List
Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	Listed
1,1-Difluoroethane	75-37-6	SHHS
Isobutane	75-28-5	SHHS
Dimethyl ether	115-10-6	SHHS
Propane	74-98-6	SHHS

SHHS = Special Health Hazard Substance

Pennsylvania

US Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

Component	CAS no.	RTK List
1,1-Difluoroethane	75-37-6	Listed
Isobutane	75-28-5	Listed
Dimethyl ether	115-10-6	Listed
Propane	74-98-6	Listed

California

California Prop 65: This product does not contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Section 16: Other Information

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. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for their own particular use.