
SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION:

Product name: Rivenco X GUN FOAM, LOW EXPANSION
Recommended use: Polyurethane Foam
Restrictions on use: No further information available
Manufacturer: Rivenco Industries Ltd.
150 Curtis Drive
Guelph, Ontario N1K 1N5
Tel: (519)-822-0544
Fax: (519)-822-0543

SECTION 2 – HAZARDS IDENTIFICATION:

GHS Classification:

Flammable Aerosol	–	Category 1
Gases Under Pressure	–	Compressed Gas
Acute Toxicity (Inhalation)	–	Category 4
Skin Irritation	–	Category 2
Serious Eye Irritation	–	Category 2A
Respiratory Sensitization	–	Category 1
Skin Sensitization	–	Category 1
Specific Target Organ Toxicity- Single Exposure	–	Category 3
Specific Target Organ Toxicity- Repeated Exposure	–	Category 2

GHS Label elements:

Hazard symbols:



Signal word: Danger

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

Precautionary statements:

Prevention: Keep out of reach of children
Do not handle until all safety precautions have been read and understood
Keep away from heat/sparks/open flames/hot surface-No smoking
Do not spray on an open flame or other ignition source
Pressurized container: Do not pierce or burn, even after use
Avoid breathing vapors or fumes
Do not get in eyes, on skin or on clothing
Wash hands and other skin areas exposed to material thoroughly after handling
Use only outdoors or in a well-ventilated area
Wear protective gloves, protective clothing and eye protection
In case of inadequate ventilation, wear respiratory protection

Response: If on skin: Wash with plenty of soap and water. If skin irritation or rash occurs:
Get medical attention.
If inhaled: if breathing is difficult, remove victim to fresh air and keep at rest in
a position comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Get medical advice if you feel unwell.
If experiencing respiratory symptoms: Call a POISON CENTER or doctor
Eliminate all ignition sources if safe to do so.

Storage: Store in a well-ventilated place. Store locked up.
Protect from sunlight
Do not expose to temperature exceeding 50°C (122°F).

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

Other hazards: None known

Supplemental information: No further information available

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS:

Substance/Mixture : Mixture

Chemical Name	CAS No.	Concentration (%)
Urethane Pre-Polymer Blend (Non-Hazardous Polyol Blend)	Proprietary	60.0 – 100.0
4,4'-Diphenylmethane Diisocyanate (MDI)	101-68-8	5.0 – 10.0
Polymethylene Polyphenyl Isocyanate (PMDI)	9016-87-9	5.0 – 10.0
Isobutane	75-28-5	3.0 – 7.0
Dimethyl Ether	115-10-6	3.0 – 7.0
Propane	74-98-6	1.0 – 5.0

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentration applicable, are classified as hazardous to the health and environment and hence require reporting in this section.

SECTION 4 - FIRST AID MEASURES:

Eye contact: Flush with copious quantities of lukewarm water for at least 15 minutes. Remove contact lenses, if present and easy to do so. If irritation persists, get medical attention immediately.

Skin contact: Use a rag to remove excess foam from skin and remove contaminated clothing. Use of a mild solvent, such as acetone (nail polish remover) or mineral spirits, may help in removing uncured foam residue from clothing or other surfaces (avoid eye / skin contact). Cured foam may be physically removed by persistent washing with water and a non-abrasive soap. If irritation develops, use mild cream. If it persists, seek medical attention.

Inhalation: Remove to fresh air if breathing difficulty is experienced. If necessary, provide oxygen or artificial respiration by trained personnel and obtain medical attention.

Ingestion: Do not induce vomiting. Consult physician. Do not give anything orally to an unconscious person. Get medical advice/attention.

Most important symptoms/effects, acute and delayed:

Eye: May cause eye irritation.

Skin: May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause an allergic reaction.

Inhalation: May be harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Ingestion: May be harmful if swallowed. May cause gastrointestinal irritation: stomach

distress, nausea or vomiting.

Indication of immediate medical attention and special treatment needed:

Provide general supportive measures and treat symptomatically. Symptoms may not appear immediately. In case of an accident or if you feel unwell, seek medical advice immediately.

SECTION 5 - FIRE FIGHTING MEASURES:

Suitable extinguishing media:

Carbon dioxide, dry chemical, Halon 1211, or chemical foam. Water can be used to cool fire exposed containers to prevent pressure build-up and possible explosion.

**Unsuitable extinguishing media:
Specific hazards arising from the chemical:**

Do not use water jets and high pressure water as these may spread the fire.

Contain flammable propellant. Eliminate all ignition sources. Closed containers may explode due to build up of pressure when exposed to extreme heat. Cured foam will burn in the presence of heat. Exposure to combustion products may be hazard to health. Combustion products may include and are not limited to: oxides of carbon, oxides of nitrogen, hydrogen fluoride and traces of hydrogen cyanide.

Special protective equipment and precautions for fire fighters:

Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan.

SECTION 6 – ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment recommended in Section 8. Isolate the hazard area. Eliminate sources of ignition. Avoid breathing vapor.

Environment precautions:

Discharged into the environment must be avoided. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up:

Restrict access to the area of the spill. Provide ventilation, NIOSH / MSHA approved respirator and protective clothing. Uncured foam is very sticky and the bulk of the spilled material should be scraped up and placed in container for disposal. Cleaning of the residual foam may require the use of rags and a solvent such as acetone (nail polish remover), mineral spirits, or paint thinners. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Once the foam has cured, it can only be removed physically by scraping, buffing, etc. Before disposing of containers, relieve the container of any remaining foam and pressure. Allow foam to fully cure before disposing (never discard in a liquid state). Local, state, provincial, federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup.

SECTION 7 – HANDLING AND STORAGE:

Precautions for safe handling:

Keep away from sources of ignition-No smoking. Do not spray on an open flame or other ignition source. Pressurized container: do not pierce or burn. Container may explode if heated. Use only in a well-ventilated area or outdoors. When using, do not eat, drink or smoke.

Conditions for safe storage, including any incompatibilities:

Store under dry conditions, between 15.5°C (60°F) and 26.6°C (80°F). Keep away from sources of ignition. Do not expose to open flame or temperatures above 50°C (122°F). Storage above 32.2°C (90°F) will shorten the shelf life. Storage below 12.7°C (55°F) may affect foam quality if the chemicals are not warmed prior to use. Protect unused product from FREEZING. Keep containers upright. Keep away from children.

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION:

Control Parameters:

Ingredient	CAS No.	OSHA-PEL TWA	ACGIH-TLV	NIOSH
4,4'-Diphenylmethane diisocyanate	101-68-8	0.02 ppm; 0.2 mg/m ³ (Ceiling)	0.005 ppm; 0.051 mg/m ³ (8 hrs.) TWA	0.005 ppm; 0.05 mg/m ³ TWA 0.02 ppm; 0.2 mg/m ³ CEIL
Isobutane	75-28-5	-----	1000 ppm TWA	800 ppm; 1900 mg/m ³ TWA
Dimethyl ether	115-10-6	-----	-----	-----
Propane	74-98-6	1000 ppm; 1800 mg/m ³ TWA	1000 ppm; 1800 mg/m ³ TWA	1000 ppm; 1800 mg/m ³ TWA

Engineering controls:

If vapor levels are expected to exceed exposure guidelines, wear a NIOSH / MSHA approved, positive pressure, supplied air respirator. In indoor applications, passive ventilation (opening of doors and windows) is recommended. Local exhaust as necessary to keep exposure levels within guidelines.

Personal protective equipment:

Safety glasses with side-protection, impermeable gloves (e.g., neoprene, nitrile, silver shield (R)), coveralls or apron are important in preventing contamination of eyes, skin and clothing. Wash thoroughly after handling. Facilities storing or utilizing this product should be equipped with an eyewash facility and a safety shower.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	Viscous liquid which foams upon release from container
Odor:	Slight hydrocarbon odor during curing stage, off-white to yellowish froth
Odor threshold:	Not available
pH:	Not available
Melting point/Freezing Point:	Not available
Initial boiling point and boiling range:	Not available
Flash point:	-68.9°C (-156°F) based on liquefied petroleum gas (Hydrocarbon, HC)
Evaporation rate:	Not available
Flammability:	Flammable
Lower flammability/Explosive limit:	Not available
Upper flammability/Explosive limit:	Not available
Vapor pressure:	Contents under pressure have a vapor pressure greater than 50 psig (345 kPa). After release from container, vapor pressure is very low (not determined)
Vapor density:	Not available
Specific gravity:	1.1
Solubility:	Insoluble, reacts slowly with water during cure, liberating traces of CO ₂
Partition coeff.: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available
VOC content:	165 g/L (calculated minus exempt compounds and water)

SECTION 10 – STABILITY AND REACTIVITY:

Reactivity:	No dangerous reaction known under conditions of normal use.
Chemical stability:	Stable under normal storage conditions. Avoid temperatures below 4°C (40°F). For longest shelf life, avoid storage above 38°C (100°F).
Possibility of hazardous reactions:	Elevated temperatures can cause product to decompose, releasing carbon

dioxide. Contents are under pressure and expose to high temperature can cause containers to rupture or explode.

Conditions to avoid:	Heat, incompatible materials and sources of ignition. Avoid temperatures below 4°C (40°F) or temperatures above 38°C (100°F).
Incompatible materials:	Alcohols, strong bases, amines, metal compounds, ammonia and strong oxidizing agents.
Hazardous decomposition products:	Carbon oxides, nitrogen oxides and traces of incompletely burned carbon products, hydrogen cyanide, hydrogen fluoride and hydrochloric acid.

SECTION 11 - TOXICOLOGICAL INFORMATION:

Information on the likely routes of exposure:

Inhalation:	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Ingestion:	May be harmful if swallowed.
Skin contact:	May cause an allergic skin reaction.
Eye contact:	May cause serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics:	No information available.
Acute toxicity:	Expected to have low acute oral toxicity. Expected to have low inhalation toxicity. Expected to have low dermal toxicity.
Skin corrosion/irritation:	May cause skin irritation.
Serious eye damage/irritation:	May cause serious eye irritation.
Aspiration hazard:	No data available.
Specific target organ toxicity - single exposure:	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure:	May cause damage to the lungs, central nervous system and skin.
Respiratory or skin sensitization:	May cause skin and respiratory sensitization.
Carcinogenicity:	4,4'-Diphenyl Diisocyanate (MDI) (CAS# 101-68-8) and Polymethylene Polyphenyl Isocyanate (PMDI) (CAS# 9016-87-9): IARC Group 3 Carcinogen- Not classified as to its carcinogenicity to humans. Not listed as a carcinogen by ACGIH, OSHA or NTP. MDI/PMDI did not cause birth defects in laboratory animals. Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/PMDI (6 mg/m ³) for their lifetime.
Reproductive toxicity:	4,4'-Diphenyl Diisocyanate (MDI) (CAS# 101-68-8): Rat, female, 6 hrs/day, 12 mg/m ³ , days 6 - 15 (gestation period); 4 mg/m ³ (maternal/fetotoxicity).
Teratogenicity:	No data available.
Germ-cell mutagenicity:	Test data using laboratory animals was predominately negative.

SECTION 12 – ECOLOGICAL INFORMATION:

Ecotoxicity:	Not experimentally determined. However, it is expected to have low acute aquatic toxicity based on the acute aquatic toxicity of individual components and their concentration in this mixture.
Persistence and degradability:	Not readily biodegradable. In aquatic and terrestrial environments, this material reacts with water.
Bioaccumulative potential:	Bioaccumulation potential is low.
Mobility in soil:	Expected to have low mobility based on product's reactivity with water.

Other adverse effects: No data available

SECTION 13 – DISPOSAL CONSIDERATIONS:

Disposal instructions: Before disposing of containers, relieve container of any remaining foam and pressure. Allow dispensed product to fully cure before disposing. Never discard in liquid state. Dispose of contents/container in accordance with local, regional, national and international regulations.

Waste from residues: Dispose of in accordance with local regulations.

Contaminated packaging: Do not puncture or incinerate containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14 - TRANSPORT INFORMATION:

Shipping Information:

For containers 1 liter or less:

*Due to changes in December 2020: See shipping papers for exact 49 CFR descriptions.

Ground	Consumer Commodity ORM-D	Limited Quantity
Air	UN1950 Aerosols, Flammable 2.1 (Flammable Gas Label) LIMITED QUANTITY Packing Instructions (Cargo & Passenger) 203	UN1950 Aerosols, Flammable 2.1 (Flammable Gas Label) LIMITED QUANTITY Packing Instructions (Cargo & Passenger) 203
Water	UN1950 Aerosols, Flammable 2.1 (Flammable Gas Label) LIMITED QUANTITY	UN1950 Aerosols, Flammable 2.1 (Flammable Gas Label) LIMITED QUANTITY

SECTION 15 - REGULATORY INFORMATION:

U.S. Federal Regulations:

OSHA Hazard Communication Standard:

This material is classified as hazardous in accordance with OSHA 29 CFR 1910 – 1200.

SARA 302/304 Extremely Hazardous Substances:

No components of this product are subject to the reporting requirements of these sections of Title III of SARA.

SARA 302/304 Emergency Planning & Notification:

No components of this product are subject to the reporting requirements of these sections of Title III of SARA.

SARA 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard, Fire Hazard, Reactive Hazard, Sudden Release of Pressure Hazard

SARA 313: MDI and PMDI are subject to the reporting levels established by Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986.

Comprehensive Response Compensation and Liability Act (CERCLA):

This product contains the following CERCLA reportable substance: 4,4'-Diphenylmethane diisocyanate (CAS# 101-68-8): RQ- 2,268 kg (5,000 lbs).

Clean Air Act (CAA):

4,4'-Diphenylmethane diisocyanate (CAS# 101-68-8) is listed as Hazardous Air Pollutants (HAPs) designated in CAA

Section 112(b). This product does not contain any Class 1 or Class 2 Ozone depletors.

Clean Water Act (CWA):

4,4'-Diphenylmethane diisocyanate (CAS# 101-68-8) is listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

U.S. State Regulations:

California Proposition 65: This product contains trace amount of substances known to the State of California to cause cancer or other reproductive harm.

Other U.S. State Inventories:

4,4'-Diphenylmethane diisocyanate (CAS# 101-68-8) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: CA, DE, ID, IL, ME, MA, MN, NJ, PA, WA, WI.

Polymeric MDI (CAS #9016-87-9) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: DE, NJ, MN.

Isobutane (CAS # 75-28-5) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: DE, ME, MA, NJ, PA.

Dimethyl ether (CAS # 115-10-6) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: DE, ME, MA, MN, NJ, PA.

Propane (CAS # 74-98-6) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: DE, MA, MN, NJ, PA, WA.

The ingredients of this product are reported in the following inventories:

TSCA: All components of this product are listed or exempted from listing on the TSCA inventory of Chemical Substances.

DSL: All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempted from listing on the Canadian Domestic Substances List (DSL).

Canadian National Pollutant Release Inventory (NPRI):

4,4'-Diphenylmethane diisocyanate (CAS# 101-68-8) and Polymeric MDI (CAS #9016-87-9) are listed on the NPRI.

NFPA Profile: Health 2, Flammability 3, Reactivity 1

SECTION 16 - OTHER INFORMATION:

Prepared by: Technical Services Department
Revision date: March 15, 2017

The information herein is given in good faith, but no warranty, express or implied, is made. Product users should make independent judgements of the suitability of this information to ensure proper use and to protect the health and safety of employees.

From: SDSRIVENCOXGUNFOAM **Rev.:** 1 **Date:**03/1