



SAFETY DATA SHEET

K238

1. Identification

Product number 1000011608
Product identifier **TERAND EXPANDABLE INSULATING FOAM SEALANT**
Revision date 10-15-2015
Company information CPC
1005 S. Westgate Drive
Addison, IL 60101 United States
Company phone General Assistance 630-543-7600
Emergency telephone US 1-866-836-8855
Emergency telephone outside US 1-952-852-4646
Version # 05
Supersedes date 10-14-2015
Recommended use Sealant
Recommended restrictions None known.

2. Hazard(s) identification

Physical hazards	Flammable aerosols	Category 1
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, respiratory	Category 1
	Sensitization, skin	Category 1
	Carcinogenicity	Category 2
	Specific target organ toxicity, repeated exposure	Category 2
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not breathe gas. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection.

Response If on skin: Wash with plenty of water. If inhaled: If breathing is difficult, 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. Specific treatment (see this label). 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/doctor. Take off contaminated clothing and wash before reuse.

Storage	Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Butane		106-97-8	10 - 20
Dimethyl Ether		115-10-6	10 - 20
Methylene bisphenol isocyanate (MDI)		101-68-8	10 - 20
Propane		74-98-6	2.5 - 10
Other components below reportable levels			60 - 80

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	If breathing is difficult, remove 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	In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
Eye contact	Rinse with water. 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	Dermatitis. Rash. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). 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	Dry powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Water.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol.

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. Wear appropriate protective equipment and clothing during clean-up. Do not breathe gas. 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.
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Methods and materials for containment and cleaning up

Refer to attached safety data sheets and/or instructions for use. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. 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. Scoop up used absorbent into drums or other appropriate container. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. 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**

Eliminate all sources of ignition. 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. All equipment used when handling the product must be grounded. Do not re-use empty containers. Do not breathe gas. Avoid contact with eyes, skin, and clothing. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Level 3 Aerosol.

Store locked up. 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 original tightly closed container. Store in a well-ventilated place. Refrigeration recommended. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Methylene bisphenol isocyanate (MDI) (CAS 101-68-8)	Ceiling	0.2 mg/m3
Propane (CAS 74-98-6)	PEL	0.02 ppm 1800 mg/m3 1000 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Butane (CAS 106-97-8)	STEL	1000 ppm
Methylene bisphenol isocyanate (MDI) (CAS 101-68-8)	TWA	0.005 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1900 mg/m3 800 ppm
Methylene bisphenol isocyanate (MDI) (CAS 101-68-8)	Ceiling	0.2 mg/m3
	TWA	0.02 ppm 0.05 mg/m3 0.005 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m3 1000 ppm

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
Dimethyl Ether (CAS 115-10-6)	TWA	1880 mg/m3

Components	Type	Value
		1000 ppm
Biological limit values		No biological exposure limits noted for the ingredient(s).
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 must 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).
Hand protection		Wear appropriate chemical resistant gloves.
Skin protection		
Other		Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Skin protection		
Respiratory protection		If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.
Thermal hazards		Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations		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	Gas.
Form	Aerosol.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	-0.34 °F (-17.97 °C) estimated
Flash point	-156.0 °F (-104.4 °C) Propellant estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	5336.16 psig @70F estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.

Viscosity Not available.

Other information

Specific gravity 0.52 estimated

10. Stability and reactivity

Reactivity The 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 Hazardous polymerization does not occur.

Conditions to avoid Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents. Nitrates. Alkaline metals. Alcohols. Fluorine. Chlorine. Phenols.

Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Ingestion Expected to be a low ingestion hazard.

Inhalation May cause damage to organs through prolonged or repeated exposure by inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Prolonged inhalation may be harmful.

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

Eye contact Causes serious eye irritation.

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

Information on toxicological effects

Acute toxicity May be harmful if inhaled. Irritating to respiratory system.

Components	Species	Test Results
Butane (CAS 106-97-8)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	1237 mg/l, 120 Minutes 52 %, 120 Minutes
	Rat	1355 mg/l
Dimethyl Ether (CAS 115-10-6)		
Acute		
<i>Inhalation</i>		
NOEL	Rat	2 ppm, 6 Hours
<i>Oral</i>		
LD50	Rat	460 mg/kg
Methylene bisphenol isocyanate (MDI) (CAS 101-68-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 9400 mg/kg, 24 Hours
<i>Other</i>		
LD50	Mouse	100 mg/kg
Propane (CAS 74-98-6)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	1237 mg/l, 120 Minutes 52 %, 120 Minutes
	Rat	1355 mg/l

Components	Species	Test Results
		658 mg/l/4h

* 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	
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	Suspected of causing cancer.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Methylene bisphenol isocyanate (MDI) (CAS 101-68-8) 3 Not classifiable as to carcinogenicity to humans.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not listed.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Respiratory system. Eyes. May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not likely, due to the form of the product.
Chronic effects	Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure.

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
Dimethyl Ether (CAS 115-10-6)		
Aquatic		
Crustacea	EC50	Water flea (<i>Daphnia pulex</i>) 4.3 - 7.8 mg/l, 48 hours
Fish	LC50	Striped bass (<i>Morone saxatilis</i>) 10.302 - 16.743 mg/l, 96 hours

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

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Partition coefficient n-octanol / water (log Kow)	
Butane	2.89
Dimethyl Ether	0.1
Propane	2.36
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.

13. Disposal considerations

Disposal instructions	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	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

K238**14. Transport information****DOT**

UN number	UN1950
UN proper shipping name	Aerosols, flammable, (each not exceeding 1 L capacity)
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking and both may be displayed concurrently.

IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Environmental hazards	No.
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.
Packaging Exceptions	LTD QTY

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	No.
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Packaging Exceptions	LTD QTY

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.



IATA; IMDG



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Methylene bisphenol isocyanate (MDI) (CAS 101-68-8) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Diphenylmethane Diisocyanate [isomers And Homologues]	9016-87-9	10 - 20
Methylene bisphenol isocyanate (MDI)	101-68-8	10 - 20

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Methylene bisphenol isocyanate (MDI) (CAS 101-68-8)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Butane (CAS 106-97-8)

Dimethyl Ether (CAS 115-10-6)

Propane (CAS 74-98-6)

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

- Butane (CAS 106-97-8)
- Dimethyl Ether (CAS 115-10-6)
- Methylene bisphenol isocyanate (MDI) (CAS 101-68-8)
- Propane (CAS 74-98-6)

US. New Jersey Worker and Community Right-to-Know Act

- Butane (CAS 106-97-8)
- Dimethyl Ether (CAS 115-10-6)
- Methylene bisphenol isocyanate (MDI) (CAS 101-68-8)
- Propane (CAS 74-98-6)

US. Pennsylvania Worker and Community Right-to-Know Law

- Butane (CAS 106-97-8)
- Dimethyl Ether (CAS 115-10-6)
- Methylene bisphenol isocyanate (MDI) (CAS 101-68-8)
- Propane (CAS 74-98-6)

US. Rhode Island RTK

- Butane (CAS 106-97-8)
- Dimethyl Ether (CAS 115-10-6)
- Methylene bisphenol isocyanate (MDI) (CAS 101-68-8)
- Propane (CAS 74-98-6)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
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)	Yes
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, including date of preparation or last revision

Issue date 06-06-2015
Revision date 10-15-2015
Version # 05

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. We cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Revision Information Product and Company Identification: Alternate Trade Names

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SDS US

Product #: 1000011608 Version #: 05 Revision date: 10-15-2015 Issue date: 06-06-2015