

SAFETY DATA SHEET

1. Identification

Product number 8247, 9877, 8424
Product identifier **Maxx-Grip**
Company information TIFCO INDUSTRIES
21400 NORTHWEST FWY
CYPRESS, TX 77429 United States
Company phone 281-571-6000
Version # 01
Recommended use Protective Coating
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
Germ cell mutagenicity Category 2
Carcinogenicity Category 1
Specific target organ toxicity, single exposure Category 3 narcotic effects
OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer.

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. Avoid breathing gas. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face 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/doctor if you feel unwell. Specific treatment (see this label). If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash 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 local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) Not classified.

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2
Hazardous to the aquatic environment, long-term hazard Category 2

Supplemental information

Hazard statement Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Prevention Avoid release to the environment.

Response Collect spillage.

64.05% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 64.05% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

Hazardous components Chemical name	Common name and synonyms	CAS number	%
Butane		106-97-8	20 - 40
Trichloroethylene		79-01-6	20 - 40
Propane		74-98-6	10 - 20
Other components below reportable levels			20 - 40

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

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing. Wash off with soap and plenty of water. If skin irritation occurs: Get medical advice/attention.
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	Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
Most important symptoms/effects, acute and delayed	Irritation of eyes and mucous membranes. May cause drowsiness or dizziness.
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	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. IF exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Powder. Water. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	None known.
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. Use water spray to cool unopened containers. 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 container from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. In the event of fire and/or explosion do not breathe fumes.

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 personal protective 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 MSDS.
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. Collect spillage. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the MSDS.
Environmental precautions	Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. 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. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid breathing gas. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Use only in well-ventilated areas. Use personal protective equipment as required. Observe good industrial hygiene practices. Wash hands thoroughly after handling. Do not empty into drains.

Conditions for safe storage, including any incompatibilities

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 away from incompatible materials (see Section 10 of the MSDS). Level 2 Aerosol.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Propane (CAS 74-98-6)	PEL	1800 mg/m ³ 1000 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Trichloroethylene (CAS 79-01-6)	Ceiling	200 ppm
	TWA	100 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Trichloroethylene (CAS 79-01-6)	STEL	25 ppm
	TWA	10 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1900 mg/m ³ 800 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m ³ 1000 ppm
Trichloroethylene (CAS 79-01-6)	TWA	25 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Trichloroethylene (CAS 79-01-6)	15 mg/l	Trichloroacetic acid	Urine	*
	0.5 mg/l	Trichloroethanol, without hydrolysis	Blood	*

* - For sampling details, please see the source document.

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. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear eye/face protection. Wear safety glasses with side shields (or goggles).
Hand protection	Wear protective gloves.
Other	Wear appropriate chemical resistant clothing.
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. Keep away from food and drink. 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.

9. Physical and chemical properties

Appearance	Clear.
Color	Colorless. Light yellow.
Form	Aerosol.
Physical state	Gas.
Flash point	-156.00 °F (-104.44 °C) Propellant estimated
Melting point/freezing point	Not available.
Odor	Not available.
pH	Not available.
Solubility(ies)	Not available.
Vapor density	Not available.
Vapor pressure	45 - 55 psig @70F estimated
Viscosity	Not available.
Other information	
Specific gravity	0.762 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.
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	Prolonged inhalation may be harmful. Narcotic effects.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Irritant effects.

Information on toxicological effects

Acute toxicity Narcotic effects.

Product	Species	Test Results
8247 Maxx-Grip (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	55.6266 ml/kg, estimated
	Rat	17000.5703 mg/kg, estimated
<i>Inhalation</i>		
LC50	Mouse	23502.2441 mg/l, 4 Hours, estimated 2463.1523 mg/l, 2 Hours, estimated
	Rat	72314.6016 mg/l, If <1L: Consumer Commodity Hours, estimated 33375.9688 mg/l, 4 Hours, estimated 11632.9551 mg/l, 15 Minutes, estimated 59.3446 mg/l/4h, estimated
LD50	Mouse	15297.3193 mg/l, 10 Hours, estimated

Product	Species	Test Results
NOEL	Ape	2030.3716 mg/l, estimated
	Guinea pig	2030.3716 mg/l, estimated
	Rabbit	1487.6588 mg/l, 473 Hours, estimated
	Rat	278.1331 mg/l, 8 Hours, estimated
<i>Oral</i> LD50	Dog	15797.959 mg/kg, estimated
	Mouse	6680.7563 mg/kg, estimated
	Rat	13684.1475 mg/kg, estimated
<i>Other</i> LD100 LD50	Mouse	15297.3193 mg/kg, estimated
	Dog	7740.4443 mg/kg, estimated
	Mouse	6680.7563 mg/kg, estimated
	Rabbit	80.6586 g/kg, estimated
Components	Species	Test Results
Butane (CAS 106-97-8)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	680 mg/l, 2 Hours
	Rat	658 mg/l, 4 Hours
Propane (CAS 74-98-6)		
Acute		
<i>Inhalation</i>		
LC50	Rat	> 1442.847 mg/l, 15 Minutes 658 mg/l/4h
Trichloroethylene (CAS 79-01-6)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	20 ml/kg
	Rat	19031 mg/kg
<i>Inhalation</i>		
LC50	Mouse	8450 mg/l, 4 Hours
	Rat	26000 mg/l, If <1L: Consumer Commodity Hours 12000 mg/l, 4 Hours 1044 mg/l/4h
LD50	Mouse	49000 mg/l, 30 Minutes 5500 mg/l, 10 Hours
NOEL	Ape	730 mg/l
	Guinea pig	730 mg/l
	Rabbit	1200 mg/l, 473 Hours 730 mg/l
	Rat	100 mg/l, 8 Hours
<i>Oral</i> LD50	Dog	5680 mg/kg
	Mouse	2402 mg/kg
	Rat	4920 mg/kg
<i>Other</i> LD100 LD50	Mouse	5500 mg/kg
	Dog	2783 mg/kg
	Mouse	2402 mg/kg

Components	Species	Test Results
	Rabbit	29 g/kg

* 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 sensitization	Not available.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	May cause genetic defects.
Carcinogenicity	
IARC Monographs. Overall Evaluation of Carcinogenicity	
Trichloroethylene (CAS 79-01-6)	2A Probably carcinogenic to humans.
US. National Toxicology Program (NTP) Report on Carcinogens	
Trichloroethylene (CAS 79-01-6)	Reasonably Anticipated to be a Human Carcinogen.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Narcotic effects.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not likely, due to the form of the product.
Chronic effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Product	Species	Test Results	
8247 Maxx-Grip (CAS Mixture)			
Crustacea	EC50	Daphnia	6.1487 mg/L, 48 Hours, estimated
Fish	LC50	Fish	114.1631 mg/L, 96 Hours, estimated
Components	Species	Test Results	
Trichloroethylene (CAS 79-01-6)			
Crustacea	EC50	Daphnia	2.2 mg/L, 48 Hours
Fish	LC50	Fish	40.8933, 96 Hours
Aquatic			
Fish	LC50	Flagfish (Jordanella floridae)	3.1 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)	
Propane	2.36
Trichloroethylene	2.61
Butane	2.89
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. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. 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.
US RCRA Hazardous Waste U List: Reference	
Trichloroethylene (CAS 79-01-6)	U228

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

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

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	Aerosols, flammable
Transport hazard class(es)	2.1
Subsidiary class(es)	Not available.
Packing group	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Labels required	none
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, containing substances in Division 6.1, Packing Group III
Transport hazard class(es)	2.1
Subsidiary class(es)	6.1(PGIII)
Packaging group	Not available.
Environmental hazards	Yes
Labels required	Not available.
ERG Code	10P
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Packaging Exceptions	LTD QTY

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS, MARINE POLLUTANT
Transport hazard class(es)	2.1
Subsidiary class(es)	6.1(PGIII)
Packaging group	Not available.
Environmental hazards	
Marine pollutant	Yes
Labels required	Not available.
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Packaging Exceptions	NOT a LTD QTY

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

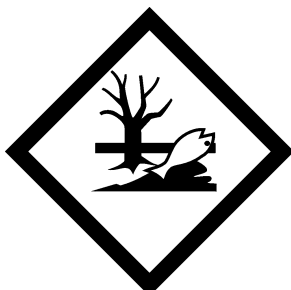
DOT



IATA; IMDG



Marine pollutant



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Trichloroethylene (CAS 79-01-6) LISTED

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

SARA 304 Emergency release notification

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

Other federal regulations

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

Trichloroethylene (CAS 79-01-6)

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

Butane (CAS 106-97-8)

Propane (CAS 74-98-6)

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Not listed.

Food and Drug Administration (FDA) Not regulated.

US state regulations

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

Butane (CAS 106-97-8) 500 lbs

Propane (CAS 74-98-6) 500 lbs

Trichloroethylene (CAS 79-01-6) 500 lbs

US. Pennsylvania RTK - Hazardous Substances

Butane (CAS 106-97-8)
Propane (CAS 74-98-6)
Trichloroethylene (CAS 79-01-6)

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)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies 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 05-13-2014

Version # 01

Further information Not available.

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available. 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.

Revision Information Transport Information: Material Transportation Information
GHS: Classification