

**Section 1 Identification**

**Product identifiers**

Product names: Tuf-Grip

**Relevant identified uses of the substance or mixture and uses advised against**

Identified uses: Solvent-based adhesive

For industrial use only

**Details of the supplier of the safety data sheet**

Freeman Manufacturing and Supply Company

1101 Moore Road, Avon, OH 44011

Phone (440) 934-1902

FAX (440) 934-7200

**Emergency telephone number**

CHEMTREC 24 hour: (800) 424-9300

**HMIS III**

<b>H</b>	2
<b>F</b>	3
<b>R</b>	0

**Section 2 Hazards Identification**

**GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)**

Flammable liquids, Category 2

Skin irritation, Category 2

Serious eye damage / eye irritation, Category 2

Specific target organ toxicity, repeated exposure, Category 2

Aspiration hazard, Category 1

Reproductive toxicity, Category 2

**GHS Label elements, including precautionary statements**



Signal word

Danger

**Hazard statements**

H225: Highly flammable liquid and vapor.

H332: Harmful if inhaled.

H31S: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H373: May cause damage to organs through prolonged or repeated exposure.

H304: May be fatal if swallowed and enters airways.

H336: May cause drowsiness or dizziness.

H361: Suspected of damaging fertility or unborn child.

**Precautionary statements**

P102: Keep out of reach of children.

P201+P202: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

**Tuf-Grip**

**Section 2 Hazards Identification continued**

P210: Keep away from heat/sparks/open flames and hot surfaces. No smoking.  
 P241: Use explosion proof electrical, ventilation, lighting, equipment  
 P242: Use only non-sparking tools.  
 P240: Ground/bond container and receiving equipment.  
 P243: Take precautionary measures against static discharge.  
 P233+P403+P235+P271: Keep container tightly closed and in a well-ventilated place. Keep cool. Use only outdoors or in a well-ventilated area.  
 P260: Do not breathe fume/gas/mist/vapors/spray.  
 P405: Store locked up.  
 P264: Wash skin thoroughly after handling.  
 P280+P281: Wear protective gloves, protective clothing, eye protection, face protection. Use other personal protective equipment as required. (See Section 8)  
 P370+P378: In case of fire, use foam, dry chemical or CO2 for extinction.  
 P501: Dispose of contents/containers in accordance with applicable regulations.

**Section 3 Composition/Information on Ingredients**

Hazardous Components	CAS Number	Percent (%)
Toluene	108-88-3	40-48
Synthetic rubber & resins	N.A.	19-25
Hexane	110-54-3	19-23
Heptane, branched, cyclic, and linear	426260-76-6	8-11
n-Heptane	142-82-5	2-6

**Section 4 First Aid Measures**

**Description of first aid measures**

IF SWALLOWED: Get medical attention immediately. Do not induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person.  
 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 ON SKIN (or hair): Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 If exposed or concerned: Immediately call a POISON CENTER or physician.  
 If medical attention is needed, have product container or label at hand.  
 Get medical advice/attention if you feel unwell.

**Section 5 Fire-Fighting Measures**

**Suitable extinguishing media**

Foam, dry chemical, or carbon dioxide

**Advice for firefighters**

Do not use water as it may be ineffective. Water may be used to cool closed containers.

**Tuf-Grip**

**Section 5 Fire-Fighting Measures** continued

Wear self-contained breathing apparatus and protective clothing in fighting fires to avoid inhalation of smoke and vapors.

**Unusual fire and explosion hazards**

Vapors may cause flash fire. Vapors may ignite explosively.

**Section 6 Accidental Release Measures**

**Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Refer to protective measures listed in section 7 and 8. Remove all sources of ignition. Keep unprotected persons away. Ensure adequate ventilation. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Evacuate personnel to safe areas.

**Environmental precautions**

Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Dike the spill as needed.

**Methods and materials for containment and cleaning up**

Ensure adequate ventilation. Remove all sources of flame, heat, or sparks. Turn off all electric motors in the area. Ventilate the area. Absorb with liquid-binding material and shovel or sweep up. Transfer to container suitable for flammable solvents. Use personal protective clothing and equipment.

**Section 7 Handling and Storage**

**Precautions for safe handling**

Extremely flammable liquid. Avoid heat, sparks, open flames. Vapors are heavier than air and may spread along floors. Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentrations higher than the occupational exposure limits. Use grounding wires when transferring product from one container to another. Avoid breathing vapors and contact with skin and eyes. Provide adequate general and local exhaust ventilation. Hazardous residue may remain in emptied container. Do not reuse empty containers without commercial cleaning or reconditioning.

**Conditions for safe storage, including any incompatibilities**

Store product in a cool, well-ventilated place. Keep containers tightly sealed when not in use.

**Section 8 Exposure Controls/Personal Protection**

**Exposure controls**

**Appropriate engineering controls**

Provide general and local exhaust. Ventilation of sufficient volume and pattern should keep vapor concentration below 20 PPM.

**Personal protective equipment**

**Eye/face protection**

Wear goggles, face shield, or safety glasses with side shields

**Tuf-Grip**

**Section 8 Exposure Controls/Personal Protection** continued

**Skin protection**

**Hand Protection**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Material of gloves: neoprene, nitrile rubber, butyl-rubber

**Body Protection**

Prevent skin contact when handling material.

**Respiratory Protection**

The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, use a NIOSH approved respirator for organic vapor and mist in compliance with OSHA Standard 29 CFR 1910.134.

**Safety Stations**

Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

**General Hygienic Practices**

Avoid breathing vapor or mist. Avoid contamination of food, beverages, or smoking materials. Wash thoroughly after handling, and before eating, drinking or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse.

**Section 9 Physical and Chemical Properties**

<b>Appearance</b>	Light tan color, mobile liquid
<b>Odor</b>	Toluene/Naphtha solvent odor
<b>Odor Threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting Point</b>	No data available
<b>Boiling Point</b>	152.0°F
<b>Flash Point</b>	-20°F (-28°C)
<b>Evaporation Rate (Butyl Acetate = 1)</b>	>1
<b>Evaporation Rate (Ethyl Ether = 1)</b>	<1
<b>Lower Explosion Limit</b>	1.0 (% by Volume)
<b>Upper Explosion Limit</b>	7.7 (% by Volume)
<b>Vapor Pressure</b>	125.0 mmHg
<b>Vapor Density (Air = 1)</b>	3.2
<b>Specific Gravity</b>	0.85
<b>Water Solubility</b>	Negligible
<b>Coefficient: n-octanol/ water</b>	No data available
<b>Auto-ignition Temperature</b>	399°F (204°C)
<b>Viscosity</b>	No data available

**Section 10 Stability and Reactivity**

**Stability:** This product is stable under normal storage conditions

**Conditions to avoid:** Fire, excessive heat

**Incompatibility (Materials to avoid):** Strong oxidizing agents

**Hazardous reactions:** Hazardous polymerization will not occur under normal conditions.

**Hazardous decomposition products:** Carbon monoxide, carbon dioxide, HCl, Cl<sub>2</sub>, and hydrocarbons

**Tuf-Grip**

**Section 11 Toxicological Information**

**Primary routes of entry:** Inhalation, Skin contact, skin absorption, ingestion, eye contact

**Component Analysis LCSO/LDSO:**

Toluene	Inhalation LC50 Rat 12.5 mg/L 4 h; Inhalation LC50 Rat >26700 ppm 1 h; Oral LD50
Hexanes	Inhalation LC50 Rat >31.86 mg/1 4 h; Oral LD50 Rat 16,000 <i>mg/kg</i> ; Dermal LD50
n-Heptane	Inhalation LC50 Rat 103 <i>g/m<sup>3</sup></i> 4 h; Oral LD50 Rat >15,000 <i>mg/kg</i> ; Dermal LDSO Rabbit >2000 <i>mg/kg</i> .

**Carcinogenicity**

**IARC** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.

**NTP** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen.

**Target organ effects**

This product is comprised of multiple ingredients both hazardous and non-hazardous materials. Since the quantity of each ingredient varies from less than 1% to as much as 99%, it is not possible to determine precise exposures to each individual material within the mixture. With regard to target organs, one or more of the following may be affected out of normal use or misuse of the product: Human and unborn human lungs, skin, brain, heart, kidneys, liver, reproductive organs, central nervous system and the blood. Damage to fetus possible.

**Ingestion**

Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. aspiration of material into lungs can cause chemical pneumonitis and pulmonary edema.

**Inhalation**

Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, nausea, impairment of coordination and even asphyxiation. Can cause motor neuropathy and parathesia in distal extremities upon excessive exposure.

**Skin contact**

Prolonged and repeated skin contact can cause defatting and drying of the skin which can result in skin irritation and dermatitis.

**Eye contact**

Can cause severe irritation, redness, tearing, blurred vision.

**Chronic hazards**

Overexposure may cause headache, nausea, dizziness, impairment of coordination.

**Section 12 Ecological Information**

<b>Toxicity</b>	No data available
<b>Persistence and degradability</b>	No data available
<b>Bioaccumulative potential</b>	No data available
<b>Mobility in soil</b>	No data available
<b>Results of PBT &amp; vPvB assessment</b>	No data available
<b>Volatile Organic Compounds (VOC)</b>	5.52 lb/gal (662 grams/liter)

**Section 13 Disposal Considerations**

Dispose of in accordance with applicable Federal, State, and local regulations.

**Section 14 Transport Information**

**DOT**


Proper Shipping Name: Adhesives  
 Hazard Class: 3  
 UN/NA Number: UN1133  
 Packing Group: II  
 Response Guide Number: 127

**Section 15 Regulatory Information**

**US Federal Regulations**

SARA 311/312 Hazards: See Section 2 Hazard Statements

**US State Regulations**

**California Proposition 65:**  **WARNING:** This product can expose you to chemicals including Toluene and n-Hexane, which are known to the State of California to cause birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**Inventories**

TSCA: All ingredients listed as active on the TSCA inventory

**Section 16 Other Information**

**Disclaimer**

The following supersedes Buyer's documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict of liability arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results are based on controlled lab work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.