MATERIAL SAFETY DATA SHEET
GLACIER CURE & SEAL 25%

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: Tarr, LLC
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PRODUCT NAME: GLACIER CURE & SEAL 25%
PRODUCT NUMBER: GCS, GCS30
UPC NUMBER:
PREPARED BY: Patricia Rodabaugh
DATE PREPARED: 4/7/2004
LAST REVISION: 8/27/2003
SYNONYMS: GLACIER CURE & SEAL 30%

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>Weight %</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylenes, Mixed Isomers</td>
<td>1330-20-7</td>
<td>60-75</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>Contains the following constituent</td>
</tr>
<tr>
<td>Ethyl benzene</td>
<td>100-41-4</td>
<td>5-14</td>
<td>100 ppm</td>
<td>50 ppm (skin)</td>
<td></td>
</tr>
</tbody>
</table>

3. HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW: DANGER! Flammable liquid and vapor. Harmful or fatal if swallowed. Vapors are heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger. Can cause severe lung damage and may be fatal if swallowed. Causes skin irritation. May be harmful if swallowed. May cause CNS depression.

POTENTIAL HEALTH EFFECTS

EYE CONTACT: Material is a severe eye irritant. Symptoms include stinging or burning, tearing, redness, swelling and visual disturbances.

INHALATION: Effects from vapors or spray mists in poorly ventilated areas may include irritation of the mucus membranes. Inhalation of vapors or spray mists may also result in nausea, dizziness, breathing difficulty, headaches, and loss of coordination.

INGESTION: Liquid is moderately toxic and may be harmful if swallowed. Ingestion of product may result in nausea, vomiting, diarrhea. Aspiration (breathing) of vomitus into the lungs must be avoided as even small quantities may result in aspir. pneumonitis. Serious lung damage and possibly fatal chemical pneumonia (chemical pneumonitis) can develop if this occurs. May cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Significant exposure may result in unconsciousness and death.

SKIN CONTACT: This material may cause skin irritation or sensitivity. Symptoms include redness, drying and cracking of the skin, swelling and dermatitis.

SIGNS AND SYMPTOMS OF EXPOSURE:
Effects from vapors or spray mists in poorly ventilated areas may include irritation of the mucus membranes. Inhalation of vapors or spray mists may also result in nausea, dizziness, breathing difficulty, headaches, and loss of coordination.
4. FIRST AID MEASURES

**EYE CONTACT:** Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision or swelling persist, contact a physician.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention immediately.

**INGESTION:** DO NOT INDUCE VOMITING. Have victim rinse mouth out with water, then drink sips of water to remove taste from mouth. DO NOT GIVE LIQUIDS TO A DROWSY, CONVULSING OR UNCONSCIOUS PERSON. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Transport to nearest medical facility for additional treatment.

**SKIN CONTACT:** Remove contaminated clothing/shoes. Wipe off excess material from exposed area. Flush with large amounts of water for at least 15 minutes, by the clock, and follow by washing with soap if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment. Do not reuse clothing until cleaned.

**AGGRAVATED MEDICAL CONDITIONS:**
Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product. Impaired function from preexisting disorders may be aggravated by exposure to this product. The following organs and/or organ systems may be damaged by overexposure to the material. Heart, kidney, liver, auditory system. In severe cases death may result.

**SUPPLEMENTAL HEALTH INFORMATION:**
Light hydrocarbons like this one have been associated with cardiac sensitization in abuser situations. Hypoxia or the injection of adrenaline-like substances enhances these effects. Refer to Health Effects Section.

5. FIRE FIGHTING MEASURES

**FLAMMABLE PROPERTIES**

<table>
<thead>
<tr>
<th>FLASH POINT</th>
<th>81 F</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTOIGNITION</td>
<td>NDA</td>
</tr>
<tr>
<td>LEL</td>
<td>0.01</td>
</tr>
<tr>
<td>UEL</td>
<td>0.07</td>
</tr>
</tbody>
</table>

**FLASH POINT METHOD USED:** Tag Closed Cup

**EXTINGUISHING MEDIA:**

Use foam, "alcohol" foam, CO2, dry chemical, or water fog.

**SPECIAL FIRE FIGHTING PROCEDURES:**
WARNING. Flammable Liquid. Vapors are heavier than air. Clear fire area of unprotected personnel. Fire fighters should wear self contained breathing apparatus. Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible rupture of containers. Water fog is preferred.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**
Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flames. Closed containers may explode when exposed to extreme heat. Do not apply on hot surfaces, toxic gases may form when product is contacted by flame or hot surfaces.

**COMBUSTION PRODUCTS:**

Carbon monoxide and unidentified organic compounds may be formed during combustion.

6. ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED:**
WARNING. Flammable. Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Only specially trained or qualified personnel should handle the emergency.

7. HANDLING AND STORAGE

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:**
Do not taste or swallow. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep away from heat, sparks, and flame. Surfaces that are hot may ignite even liquid product in the absence of sparks or flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone.

**OTHER PRECAUTIONS:**
KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Do not pressurize, cut weld, braze,
solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.

8. EXPOSURE CONTROL/PERSOAL PROTECTION

RESPIRATORY PROTECTION:
If exposure may or does exceed occupational exposure limits (Sec. 2) use a NIOSH approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-suppling respir. of an air-purifying respir. for organic vapors.

VENTILATION:
Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

PROTECTIVE GLOVES:
Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

EYE PROTECTION:
Use chemical safety goggles and/or full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work areas.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:
Where splashing is possible, full chemically resistant protective clothing (e.g., acid suit) and boots are required.

WORK / HYGENIC PRACTICES:
Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, smoking, or using the toilet.

ENGINEERING CONTROLS:
Facilities storing or utilizing this material should be equipped with and eyewash facility and a safety shower.

EXPOSURE GUIDELINES:
May be harmful or fatal if swallowed. May irritate body tissues. Use with adequate ventilation. Avoid breathing vapor. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

SOLUBILITY IN WATER: Insoluble in water.

APPEARANCE AND ODOR: Liquid with aromatic hydrocarbon odor.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>264 - 284 F</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>7 - 75</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Slow than ether.</td>
</tr>
<tr>
<td>Pounds Per Gallon</td>
<td>7.38 - 7.76</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.88 - 0.94</td>
</tr>
<tr>
<td>Melting Point</td>
<td>NDA</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>NDA</td>
</tr>
</tbody>
</table>

PH: essentially neutral

Molecular Weight: Heavier than air

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Stable under normal conditions.

INCOMPATIBILITY:
Strong oxidizing agents, strong alkalies, or strong mineral acids.

HAZARDOUS DECOMPOSITION OR BY PRODUCTS:
Dry material exposed to high heat such as welding or flame-cutting operations may release carbon monoxide.
HAZARDOUS POLYMERIZATION: Will Not Occur

CONDITIONS TO AVOID: Avoid heat, flame, and other sources of ignition.

11. TOXICOLOGY INFORMATION
This product may contain benzene (CAS No. 71-43-2) and Toluene (CAS 108-88-3) at <1% weight. Acute Toxicity for Xylene: Dermal - LD50, results: Approximately 5 ml/kg (rabbit); Inhalation - LC50, results: 6700 ppm (v) (rat) 4 hour(s); Oral - LD50, results: 3.523 g/kg (rat). Eye Irritation: Draize - 9.0/110 (rabbit), skin irritation: Slight to moderate (rabbit). Repeat Dose Testing: While there is no evidence that industrially acceptable levels of light hydrocarbon vapors (e.g., the occupational exposure limit) have produced cardiac effects in humans, animals studies have shown that inhalation of high levels produced cardiac sensitazation. Such sensitization may cause fatal changes in heart rhythms, which was shown to be enhanced by hypoxia or the injection of adrenaline-like substances. Carcinogenicity: Chronic inhalation exposure to 750 ppm ethyl benzene vapor produced increased incidences of renal tubular hyperplasia and neoplasms (males and females) and testicular adenomas in F344/N rats and alveolar/bronchiolar (males) and hepatocellular (females) neoplasms in B6C3F1 mice. Genetic toxicology studies found ethyl benzene not to be mutagenic or clastogenic. The relevance of these effects to humans is unclear. Ethylbenzene is listed by the IARC as a Group 2B - possible carcinogen. Reproductive and Developmental Toxicity: In developmental toxicity studies conducted in laboratory animals, there is no evidence of teratogenicity following inhalation exposure to xylene, but delayed development and behavioral impairments have been observed at doses levels causing no or only slight maternal toxicity. Neurotoxicity: Prolonged and repeated exposures to high concentrations of some volatile hydrocarbon solvents have resulted in hearing loss in rats. Solvent abusers and noise interaction with these solvents in the work environment may cause symptoms of hearing loss. Short term repeated inhalation exposure of humans to m-xylene (200 ppm or greater) was reported to produce slight impairment of vestibular and visual function and reaction time. In these studies, there was no evidence of cumulative effects but some evidence of tolerance or adaptation. Other Information: Over exposures of humans to xylene or xylene solvent mixtures produced predominated central nervous system (CNS) effects with less common effects reported to the lung, gastrointestinal tract, liver, kidney and heart. High exposures to xylene in some animal studies, often at levels toxic to the mother, affected embryo/fetal development. The significance of this finding to humans is not known. Ethylbenzene Acute Data: LD50 Oral Rat = 3500 mg/kg, LC50 Inhalation Rat = 4000 ppm for 4 hours, LD50 Dermal Rabbit = 17.8 mL/kg.

12. ECOLOGICAL INFORMATION
Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

13. DISPOSAL CONSIDATIONS
The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

14. TRANSPORTATION INFORMATION
DOT Proper Shipping Name: Paint Related Material
PACKING GROUP: III
HAZARD CLASS: 3
GUIDE NUMBER: 128
UN NUMBER: UN 1263
DOT CLASS: Paint Related Material

15. REGULATORY INFORMATION
All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

16. OTHER INFORMATION
HMIS INFORMATION: HEALTH: 2 FLAMMABILITY: 3 REACTIVITY: 0 PROTECTIVE: H
SARA Title III Information:
SARA 302: Not listed as an extremely hazardous substance.
SARA 311/312: This product should be reported as an immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.
SARA 313: Xylene (1330-20-7), ethyl benzene (100-41-4), toluene (108-88-3), benzene (71-43-2)
Supplemental Information: California Proposition 65: This product contains the following chemicals known to the State of California to cause cancer & reproductive toxicity: Toluene, Benzene

The effects of solvents on human hearing are uncertain. Solvent abusers and noise interaction with xylene in the work environment may cause signs of hearing loss.
Toluene is not known to be mutagenic or carcinogenic. However, the available human and experimental data are limited and insufficient to assess carcinogenic potential. Toluene is not listed as a carcinogen by NTP, IARC, or OSHA. Intentional abuse of toluene vapors has been linked to damage of brain, liver, kidney and to death. Many case studies involving abuse during pregnancy clearly indicate that toluene is a developmental toxicant. Developmental toxic effects comparable to those observed...
in humans have been seen in lab animals but the effects were generally associated with maternal toxicity.

N/A = Not Applicable
NDA = No Data Available

Disclaimer

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