



# Safety Data Sheet

GLITSAMAX HARDENER

**PRODUCT NAME:** GLITSAMAX HARDENER  
**PRODUCT CODE:** 03-797

**HMIS CODES:** H F R P  
 1\*1 0 X

===== SECTION I - MANUFACTURER IDENTIFICATION =====

**MANUFACTURER'S NAME:** Rudd Company, Inc.  
**ADDRESS:** 1141 N.W. 50th Street, Seattle WA 98107-5120  
**EMERGENCY PHONE:** Call Chemtrec 1-800-424-9300 (spill, leak, fire, accident)  
**INFORMATION PHONE:** 206-789-1000  
**NAME OF PREPARER:** Rudd Company, Inc. - Regulatory Department

===== SECTION II - HAZARDS IDENTIFICATION =====

**GHS CLASSIFICATION:**  
 Eye Irritation 2  
 Acute Toxicity 3  
 Skin Irritation 2  
 Respiratory Sensitization 1  
 Skin Sensitization 1  
 Specific Target Organ Toxicity 3

**PICTOGRAM:**



**SIGNAL WORD:**

DANGER

**HAZARD STATEMENTS:**

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.

**PRECAUTIONARY STATEMENTS:**

Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. In case of inadequate ventilation wear respiratory protection. **IF ON SKIN:** Wash with plenty of soap and water. **IF INHALED:** 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. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment (see supplemental first aid instructions on the label or in Section IV of the SDS). 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 or doctor/physician. Wash contaminated clothing before reuse. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/container according to local and federal regulations.

===== SECTION III - COMPOSITION/INFORMATION ON INGREDIENTS =====

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE		WEIGHT
		mm Hg @ TEMP		PERCENT
HOMOPOLYMER OF HDI	28182-81-2			60
DIPROPYLENE GLYCOL DIMETHYL ETHER	111107-77-4	0.55	68 F	25
Polyisocyanate based on HDI	trade secret			15
HEXAMETHYLENE DIISOCYANATE (HDI)	822-06-0			0.15



\*Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

=====**SECTION IV - FIRST AID MEASURES**=====

**GENERAL ADVICE:**

Have Material Safety Data Sheet available when calling Poison Control Center (1-800-222-1222) or physician; or when going to the emergency room.

**IF INHALED:**

If affected by breathing odors or vapors, remove to fresh air. Get medical attention if symptoms persist. IN CASE OF SKIN CONTACT: Wash with soap and water. Remove and clean contaminated clothing and shoes. Get medical attention if irritation persists.

**IN CASE OF EYE CONTACT:**

Immediately flush with large amounts of water for at least 15 minutes, while lifting upper and lower eyelids. Get medical attention immediately.

**IF SWALLOWED:**

If person is conscious, give large quantities milk or water (mix with cornstarch if available). DO NOT induce vomiting. Call Poison Control Center (1-800-222-1222) or physician immediately.

=====**SECTION V - FIREFIGHTING MEASURES**=====

**EXTINGUISHING MEDIA: FOAM, CO<sub>2</sub>, DRY CHEMICAL, WATER FOG**

**SPECIAL FIREFIGHTING PROCEDURES:**

Evacuate all unnecessary personnel. Use full protective equipment, including self-contained breathing apparatus.

**UNUSUAL FIRE PRECAUTIONS:** None known.

**Hazardous combustion by-products: see SECTION X**

=====**SECTION VI - ACCIDENTAL RELEASE MEASURES**=====

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:**

Eliminate ignition sources and ventilate area. Evacuate unnecessary personnel. Wear full protective equipment. **SMALL SPILLS:** Take up with sand or other non-combustible absorbent material, using non-sparking tools, and place in containers for disposal. **LARGE SPILLS:** Dike drains to prevent entering storm drains or sanitary sewers, lakes, rivers, streams or waterways. Neutralize by spreading soda ash (or appropriate base material) liberally over spill. Provide plenty of ventilation for dissipating gases. Mop up cautiously with plenty of water. Store in containers for proper disposal.

**For specific information: see SECTION VIII**

=====**SECTION VII - HANDLING AND STORAGE**=====

**KEEP OUT OF REACH OF CHILDREN.**

**FOR INDUSTRIAL USE ONLY!**

**PRECAUTIONS FOR SAFE HANDLING:**

Use proper methods of ventilation to prevent vapor build-up. Avoid spraying hot surfaces. Avoid free fall of liquids in excess of a few inches. Ground fixed equipment. Bond and ground pails, drums and other transfer containers and equipment. Avoid breathing vapors and spray mists. Avoid contact with eyes and skin. Do not take internally. Use adequate methods of ventilation, respiratory and personal protective equipment. Do not reuse, weld, drill or heat empty containers which may contain explosive vapors. Follow label warnings until thoroughly cleaned or sent for disposal. Do not remove or deface label. Do not transfer to unlabeled container.

**CONDITIONS FOR SAFE STORAGE:**



Keep container closed when not in use and during transit. Do not store above 120 deg. F (50 deg. C). Keep in upright position and protect container from damage. Store in buildings or areas designed and protected for storage of products with this flammability rating. Do not store where contact with incompatible material could occur, even during an accidental spill or release. Before using two-component coatings, read the MSDS and label of both products. Mixtures will have hazards of both components.

=====**SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION**=====

**COMPONENTS WITH WORKPLACE CONTROL PARAMETERS:**

HOMOPOLYMER OF HDI ACGIH TLV: Not Est. OSHA PEL: Not Est. Other: 1 mg/m3  
DIPROPYLENE GLYCOL DIMETHYL ETHER ACGIH TLV: Not Est. OSHA PEL: Not Est.  
Polyisocyanate based on HDI Other: 5 mg/m3 8hr-TWA 10 mg/m3 STEL  
HEXAMETHYLENE DIISOCYANATE (HDI) ACGIH TLV: .005 ppm OSHA PEL: Not Est. Other: .034 mg/m3

**RESPIRATORY PROTECTION:**

Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's instructions for use.

**VENTILATION:**

USE ONLY WITH ADEQUATE VENTILATION. Provide mechanical ventilation, local exhaust or other appropriate means of ventilation to prevent vapor build-up.

**HAND PROTECTION:**

Wear impermeable acid-resistant gloves to prevent skin contact. Consult safety equipment supplier for specific recommendations of construction material.

**EYE PROTECTION:**

Wear full face shield designed to protect eyes and skin from liquid splash and mists, unless full facepiece respirator is worn. Note: Contact lenses may contribute to the severity of an eye injury and should not be worn when working with chemicals.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:**

Wear protective clothing to avoid skin contact with liquid or mists.

**APPROPRIATE ENGINEERING CONTROLS:**

Eye washes and safety showers are recommended in the workplace. Wash hands after using and before eating, drinking or using tobacco products. Thoroughly clean contaminated clothing and shoes before reuse. Periodically monitor exposure levels to hazardous ingredients listed in section II and review permissible limits.

=====**SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES**=====

**BOILING RANGE:** 347 F - 491  
**FLASH POINT:** 149 F  
**FLAMMABLE LIMITS IN AIR BY VOLUME-** LOWER: 0.85 UPPER: n/a  
**MELTING POINT:** Not available  
**DENSITY:** 9.01 lb/gl  
**RELATIVE DENSITY:** No Data  
**V.O.C. (Coating):** 2.29 lb/gl 274 g/l  
**V.O.C. (Material):** 2.29 lb/gl 274 g/l (Emitted VOC)  
**LB HAP/LB SOLIDS** 0  
**LB VOC/LB SOLIDS** 0.3  
**SOLIDS % BY WEIGHT** 74.5  
**VAPOR DENSITY:** Heavier than air.



**VAPOR PRESSURE:** See SECTION III  
**EVAPORATION RATE:** Slow (compared to n-butyl acetate)  
**SOLUBILITY IN WATER:** Moderate  
**APPEARANCE AND ODOR:** Clear colorless liquid, mild odor.  
**VISCOSITY:** No Data

===== SECTION X - STABILITY AND REACTIVITY =====

**REACTIVITY:**

Will not occur.

**STABILITY:**

Stable

**POSSIBILITY OF HAZARDOUS REACTIONS:**

None known.

**CONDITIONS TO AVOID:**

High temperature and humidity, ignition sources and vapor build-up.

**INCOMPATIBILITY (MATERIALS TO AVOID):**

Strong Oxidizing agents Acids Water Amines Bases

**HAZARDOUS DECOMPOSITION OR BYPRODUCTS:**

Acid Aldehydes Ketones

===== SECTION XI - TOXICOLOGICAL INFORMATION =====

**ACUTE TOXICITY:**

HEXAMETHYLENE DIISOCYANATE: LD50 Oral - Rat - male - 959 mg/kg  
LC50 Inhalation - Rat - male and female - 4 h - 124 mg/m3  
LD50 Dermal - Rat - > 7,000 mg/kg

**PRIMARY ROUTE(S) OF EXPOSURE:** Inhalation, skin contact, ingestion.

**INHALATION:**

Vapors and mists cause severe irritation to nose, throat and lungs (burning, stinging, coughing). May cause headache, dizziness, nausea, weakness, shortness of breath and loss of coordination. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Exposure to extremely high vapor concentrations may cause unconsciousness and asphyxiation.

**EYE CONTACT:**

Contact with liquid or vapors causes severe irritation (redness, watering, itching, stinging, blurred vision) possible burns and cornea damage.

**SKIN CONTACT:**

May cause sensitization and allergic skin reaction (contact dermatitis). Contact causes severe irritation (dryness, itching, cracking, rash and swelling).

**SKIN ABSORPTION:**

May be absorbed through the skin in harmful amounts. Repeated and prolonged contact may have a cumulative effect. Symptoms may include headache, dizziness, nausea, weakness, loss of coordination, visual disturbances.

**SWALLOWING:**

May cause nausea, vomiting and diarrhea.

**CARCINOGENICITY:**

Risk of cancer depends on level and duration of exposure.



# Safety Data Sheet

GLITSAMAX HARDENER

2/24/2016

NTP CARCINOGEN: Yes IARC MONOGRAPHS: No OSHA REGULATED: No

**MEDICAL CONDITIONS POSSIBLY AGGRIVATED BY EXPOSURE:**

Respiratory tract irritation, nausea, eye disorders, skin disorders, sensitization to chemical substances.

===== **SECTION XII - ECOLOGICAL INFORMATION** =====

**TOXICITY:**

HEXAMETHYLENE DIISOCYANATE (HDI): Toxicity to fish static test LC0 - Danio rerio (zebra fish) - >= 82.8 mg/l - 96 h  
Toxicity to daphnia and other aquatic invertebrates static test EC0 - Daphnia magna (Water flea) - >= 89.1 mg/l - 48 h  
Toxicity to algae static test EC50 - Desmodesmus subspicatus (Scenedesmus subspicatus) - > 77.4 mg/l - 72 h  
Toxicity to bacteria Respiration inhibition EC50 - Sludge Treatment - 842 mg/l - 3 h

===== **SECTION XIII - DISPOSAL CONSIDERATIONS** =====

**WASTE DISPOSAL METHODS:**

Waste material and empty containers must be disposed of in accordance with all local, state and federal environmental control regulations. Use only approved waste management facilities.

===== **SECTION XIV - TRANSPORT INFORMATION** =====

**DOT (US):** Not Regulated  
Contact your supplier for specific information.

===== **SECTION XV - REGULATORY INFORMATION** =====

**COMMUNITY RIGHT TO KNOW LIST**

**MASSACHUSETTS RIGHT TO KNOW:**  
HEXAMETHYLENE DIISOCYANATE (HDI)

**PENNSYLVANIA RIGHT TO KNOW:**  
NONE

**NEW JERSEY RIGHT TO KNOW:**  
HEXAMETHYLENE DIISOCYANATE (HDI)

===== **DISCLAIMER** =====

DISCLAIMER: THE INFORMATION CONTAINED HEREIN HAS BEEN COMPILED FROM SOURCES CONSIDERED TO BE RELIABLE. TO THE BEST OF OUR KNOWLEDGE AND BELIEF ALL INFORMATION IS ACCURATE AND IS PROVIDED IN GOOD FAITH. HOWEVER, NO GUARANTEE OF ACCURACY IS MADE OR IMPLIED.