



MATERIAL SAFETY DATA SHEET

1 CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Trade Name HARDENER BH/N
MSDS Number 222
CAS Number --0
Supplier ITW TRANS TECH
475 N. GARY AVENUE
CAROL STREAM, IL 60188 USA

Telephone Numbers - 24 Hour Emergency Assistance
Emergency (352)323-3500

Telephone Numbers - General Assistance
Information (630)752-4000

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	Concentration	Exposure Limits / Health Hazards
ETHYLBENZENE	100-41-4	1 - 2.5 %	ACGIH TLVs: 434 mg/m3
HEXAMETHYLENE-DIISOCYANATE	822-06-0	< 0.5 %	0.034 mg/m3
XYLENE	1330-20-7	2.5 - 10 %	ACGIH TLV: 435mg/m3
2-METHOXY-1-METHYLETHYL ACETATE	108-65-6	10 - 20 %	NA

3 HAZARDS IDENTIFICATION

Emergency Overview

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. Unconsciousness: lateral position - call a physician.

Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Preparation may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear anti static footwear and clothing. No sparking tools should be used.

Signs & Symptoms of Short-Term (Acute) Exposure

Excessive vapor concentration in air, especially in confined spaces, may cause asphyxiation. Excessive inhalation of vapors can cause nasal, throat and respiratory irritation, dizziness, weakness, fatigue, nausea, headache and possible unconsciousness. Eye contact causes irritation, redness, tearing, blurred vision. Eye contact with liquid or vapor causes severe irritation, redness, tearing, blurred vision. Vapors may cause severe eye irritation, redness, tearing and blurred vision. Prolonged skin contact may lead to extraction of natural oils with resultant dry skin, cracking, irritation and dermatitis. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Notice: intentional misuse by deliberately concentrating and inhaling the contents maybe harmful or fatal. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

Effects of Long-Term (Chronic) Exposure

Health studies have shown that many solvents pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids and vapors should be minimized. -Prolonged or continuous inhalation of vapors may result in delayed lung damage. -Repeated or prolonged inhalation of vapor may cause liver and kidney damage. -Repeated inhalation of vapor in high concentration can change the blood picture.

4 FIRST AID MEASURES

Skin

Wash away with soap and water and rinse.

Eye

Remove contact lenses, keep eyelids open. Flush with water for at least 15 minutes, consult a physician.

Inhalation

Take the casualty into the fresh air and keep warm. Irregular breathing/no breathing: artificial respiration.

Ingestion

Do not induce vomiting. Call a physician. Keep at rest.

Medical Conditions Aggravated by Exposure

None are known.

5 FIRE FIGHTING MEASURES

Extinguishing Media

Suitable: alcohol resistant foam, CO₂, powders, water spray.
Not suitable: water jet

Basic Fire Fighting Procedures

Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required.

Unusual Fire & Explosion Hazards

Cool endangered containers with water in case of fire. Do not allow the quenching water into the sewage system.

Flash Point 38 °C

Flammability Limits in Air, Lower, % by Volume 1

Flammability Limits in Air, Upper, % by Volume 10.8

6 ACCIDENTAL RELEASE MEASURES

Emergency Action

Remove sources of ignition. Provide for sufficient ventilation.

Environmental Precautions

Do not empty into drains. If the product contaminates lakes, rivers or sewer systems, inform appropriate authorities in accordance with local regulations.

Spill or Leak Procedure

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations. Clean preferably with a detergent. Avoid use of solvents.

7 HANDLING & STORAGE

Handling

Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentration higher than the occupational exposure limits. Additionally, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Comply with the health and safety at work laws.

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Storage

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep container tightly closed. Never use pressure to empty: container is not a pressure vessel. No smoking. Prevent unauthorized access. Keep away from oxidizing agents, from strongly alkaline and strongly acid materials. Always keep in containers of same material as the original one. Avoid heating and direct sunlight.

Ventilation

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient in maintaining concentrations of particles and solvent vapor below the OEL, suitable respiratory protection must be worn.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient in maintaining concentrations of particles and solvent vapor below the OEL, suitable respiratory protection must be worn.

Eye Protection: Personal Protection Equipments (PPE)

Use safety glasses designed to protect against splash of liquids.

Skin Protection: Personal Protection Equipments (PPE)

Use protective gloves. After washing hands replace lost skin fat by bat containing skin creams. Personnel should wear anti static clothing made of natural fiber or of high-temperature-resistant synthetic fiber. All parts of the body should be washed after contact.

Respiratory Protection: Personal Protection Equipments (PPE)

If workplace limits are exceeded, a gas mask approved for this particular job must be worn.

General

Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

This product is unlikely to harm health, given normal and proper handling and hygienic precautions. Prolonged inhalation of vapors in high concentrations may lead to headache, giddiness and nausea. In case of contact with the product: danger of resorption through the skin, irritation of skin/mucous membranes.

9 PHYSICAL & CHEMICAL PROPERTIES

Odor and Appearance

Light yellowish liquid with odor of organic solvents.

Boiling Point	145 °C
Specific Gravity	1.07
Melting Point	NA
Percent Volatile	24.9 %
Vapor Pressure	9 App.
Evaporation Rate	n. av.
Vapor Density	> 1
Solubility In Water	NO

10 STABILITY & REACTIVITY

Stability/Incompatibility

Stable under recommended storage and handling conditions.

Materials to Avoid: Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Hazardous Reactions/Decomposition Products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

Hazardous Polymerization

Will not occur.

11 TOXICOLOGICAL INFORMATION**Routes of Exposure**

Inhalation, skin, eyes and ingestion.

12 ECOLOGICAL INFORMATION**13 DISPOSAL CONSIDERATIONS****Waste Disposal**

Dispose of in accordance with federal, state, and local pollution control requirements.

14 TRANSPORT INFORMATION**Department of Transportation (DOT) Requirements:****General Transportation Information for Bulk Shipments**

Proper Shipping Name	Paint Related Material	UN/NA Code	1263
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15 REGULATORY INFORMATION**NFPA Ratings**

Health	Flammability	Reactivity	Special Hazards
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HMIS Ratings

Health 2	Flammability 2	Reactivity 1	Personal Prot. Equip. C
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16 OTHER INFORMATION**Disclaimer**

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