



MATERIAL SAFETY DATA SHEET

1 CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Trade Name HARDENER BH
MSDS Number 371
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
TOLUENE DIISOCYANATE	26471-62-5	< 0.5 %	ACGIH TLV: .005 ppm STEL: .02ppm OSHA TWA: .005ppm STEL: .02ppm
N-BUTYL ACETATE	123-86-4	30 - 35 %	OSHA PELs: 950 mg/m3 ACGIH TLV: n.av.

3 HAZARDS IDENTIFICATION

Emergency Overview

NI

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 with soap and water.

Eye

Flush with water for at least 15 minutes, consult a physician.

Inhalation

Move to fresh air. Give artificial respiration if necessary.

Ingestion

Do not induce vomiting. Do not drink water, milk or oil. Consult physician or poison control center immediately. Treat symptomatically.

Medical Conditions Aggravated by Exposure

ND

5 FIRE FIGHTING MEASURES

Extinguishing Media

Chemical powder, carbonic acid - co 2, foam.

Basic Fire Fighting Procedures

Water spray may be ineffective. For extinguishing larger fires or inside buildings, a self-contained breathing apparatus is recommended to protect firefighters from any hazardous combustion products.

Unusual Fire & Explosion Hazards

Water may be used to cool endangered containers. Keep containers tightly closed.

Flash Point 31 C

Flammability Limits in Air, Lower, % by Volume 1.2

Flammability Limits in Air, Upper, % by Volume 7.5

6 ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedure

Take up with liquid-binding materials, such as vermiculite. Take the material in closed containers to the responsible authority for elimination.

7 HANDLING & STORAGE

Handling

Keep container tightly closed.

Storage

Do not store above +50C. Store containers away from heat in a cool ventilated place. Do not smoke.

Ventilation

Local exhaust: yes special: eliminate all ignition sources.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye Protection: Personal Protection Equipments (PPE)

Use safety glasses designed to protect against splash of liquids.

General

Eye bath and shower should be available. Use chemical resistant clothing. Liquid may penetrate shoes and leather causing delayed irritation.

9 PHYSICAL & CHEMICAL PROPERTIES

Odor and Appearance

Clear, light yellow liquid w/odor of organic solvents

Boiling Point 124 C

Specific Gravity	1.16
Melting Point	NI
Percent Volatile	33
Vapor Pressure	13 (mm Hg.) hPa
Evaporation Rate	n.a.
Vapor Density	> 1
Solubility In Water	no

10 STABILITY & REACTIVITY

Stability/Incompatibility

Stable Avoid peroxides and other strong oxidizing materials.

Hazardous Reactions/Decomposition Products

Carbon monoxide, carbon 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

Incinerate in an approved facility, do not incinerate closed containers. 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		
Hazard Class	3	UN/NA Code	1263
Packaging Group	Class III		
Labels Required	Flammable Liquid		

15 REGULATORY INFORMATION

NFPA Ratings

Health	Flammability	Reactivity	Special Hazards
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HMIS Ratings

Health 1	Flammability 3	Reactivity 1	Personal Prot. Equip. C
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16 OTHER INFORMATION

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