

1. Product and Company Identification

Material name TC-4A
Version # 00
Issue date 03-September-2013
Revision date 03-September-2013
Supersedes date -
Chemical name Epoxy Adhesive
Chemical description Bonder
CAS # Mixture
Product code 803-0008
Product use Industrial Leak Sealant.
Manufacturer information
Manufacturer/Supplier Team Industrial Services, Inc.
Address 200 Hermann Drive, Alvin, Texas 77511, US
Emergency telephone number CHEMTREC - 24 HOURS
 USA: CHEMTREC: 800-424-9300
 International: 703-527-3887 (Collect)

2. Hazards Identification

Physical state Liquid.
Appearance Paste.
Emergency overview WARNING
 Causes skin and eye irritation. May cause allergic skin reaction.
OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects
Routes of exposure Eye contact. Skin contact. Ingestion. Inhalation.
Eyes Causes eye irritation.
Skin Causes skin irritation. May cause sensitization by skin contact.
Inhalation May cause respiratory tract irritation.
Ingestion May be harmful if swallowed.
Target organs Eyes. Skin.
Chronic effects May cause allergic skin disorders in sensitive individuals.
Signs and symptoms Causes eye irritation. Causes skin irritation. Symptoms include itching, burning, redness and tearing. Sensitization. Upper respiratory tract irritation. Ingestion may cause irritation and malaise.
Potential environmental effects Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Bisphenol A-diglycidylether polymer (MW <700)	25085-99-8	30-60
2-Ethylhexyl glycidyl ether	2461-15-6	10-30
Epoxy Phenol Novolac Resin	28064-14-4	10-30

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.
Skin contact	Remove contaminated clothing. Wash immediately with soap and water for at least 15 minutes. Get medical attention promptly if symptoms persist or occur after washing. In case of allergic reaction or other skin disorders: Seek medical attention and bring along these instructions.
Inhalation	In case of discomfort, move to fresh air. Get medical attention, if needed.
Ingestion	Get medical attention if any discomfort occurs.
Notes to physician	Provide general supportive measures and treat symptomatically.
General advice	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties	The product is not flammable. However: Will burn if strongly heated and when involved in fire.
Extinguishing media	
Suitable extinguishing media	Dry chemical powder. Carbon dioxide (CO2). Foam.
Unsuitable extinguishing media	Water may be ineffective.
Protection of firefighters	
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Protective equipment and precautions for firefighters	Self-contained breathing apparatus, operated in positive pressure mode and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Evacuate area and fight fire from a safe distance. Stop leak if you can do so without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire.
Specific methods	Move container from fire area if it can be done without risk. Use water spray to cool unopened containers. Cool containers exposed to flames with water until well after the fire is out. If possible, prevent water running into sewers. Water runoff can cause environmental damage.
Hazardous combustion products	Carbon oxides. Chlorine compounds.

6. Accidental Release Measures

Personal precautions	Avoid contact with skin and eyes. For personal protection, see Section 8 of the MSDS.
Environmental precautions	Prevent entry into waterways, sewer, basements or confined areas. Environmental manager must be informed of all major spillages.
Methods for containment	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Collect and dispose of spillage as indicated in Section 13 of the MSDS.
Methods for cleaning up	Wipe up with absorbent material (e.g. cloth, fleece). Prevent product from entering drains. Never return spills in original containers for re-use. Should not be released into the environment.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Avoid contact with skin and eyes. Wear personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.
Storage	Store in tightly closed original container. Store in a cool and well-ventilated place. Store away from incompatible materials.

8. Exposure Controls / Personal Protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Exposure guidelines	No exposure standards allocated.
Engineering controls	General ventilation normally adequate. Ensure adequate ventilation, especially in confined areas. Provide easy access to water supply and eye wash facilities.
Personal protective equipment	
Eye / face protection	Wear approved chemical safety goggles. Use face shield in case of splash risk.

Skin protection	Wear chemical-resistant gloves, footwear and protective clothing appropriate for risk of exposure. Contact chemical protective clothing manufacturer for specific information.
Respiratory protection	No personal respiratory protective equipment normally required. In case of inadequate ventilation, use respiratory protection.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical & Chemical Properties

Appearance	Paste.
Physical state	Liquid.
Form	Paste.
Color	Not available.
Odor	Mild aromatic.
Odor threshold	Not available.
pH	Not available.
Vapor pressure	1
Vapor density	Not available.
Boiling point	Not available.
Melting point/Freezing point	Not available.
Solubility (water)	Negligible
Specific gravity	Not available.
Flash point	163.00 °F (72.78 °C)
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.

10. Chemical Stability & Reactivity Information

Chemical stability	The product is stable under normal conditions of use, storage and transport.
Conditions to avoid	Exposure to heat and contact with sources of ignition. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Strong acids. Amines. Strong alkalis.
Hazardous decomposition products	During combustion: Carbon oxides. Chlorine compounds.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Sensitization	May cause sensitization by skin contact.
Acute effects	Ingestion may cause irritation and malaise.
Local effects	Causes skin and eye irritation. Exposed individuals may experience eye tearing, redness, and discomfort.
Chronic effects	May cause allergic skin reaction.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Epidemiology	Not available.
Mutagenicity	Not classified.
Neurological effects	Not available.
Reproductive effects	Not classified.
Teratogenicity	Not available.
Symptoms and target organs	Causes eye irritation. Causes skin irritation. Symptoms include itching, burning, redness and tearing. Sensitization. Ingestion may cause irritation and malaise.

12. Ecological Information

Ecotoxicity	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Environmental effects	This product is toxic to fish and other aquatic organisms.
Persistence and degradability	Expected to be persistent.
Bioaccumulation / Accumulation	The product is not expected to bioaccumulate.
Mobility in environmental media	The product is slightly soluble in water.

13. Disposal Considerations

Waste codes	Not regulated.
Disposal instructions	Dispose in accordance with all applicable regulations. Do not allow runoff to sewer, waterway or ground.
Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT

Basic shipping requirements:

UN number	UN3082
Proper shipping name	Environmentally hazardous substances, liquid, n.o.s. (Bisphenol A-diglycidylether polymer (MW < 700))
Hazard class	9
Packing group	III
Environmental hazards	
Marine pollutant	Yes

Additional information:

Special provisions	8, 146, 335, IB3, T4, TP1, TP29
Packaging exceptions	155
Packaging non bulk	203
Packaging bulk	241

DOT

BULK

Basic shipping requirements:

UN number	UN3082
Proper shipping name	Environmentally hazardous substances, liquid, n.o.s.
Hazard class	9
Packing group	III
Environmental hazards	
Marine pollutant	Yes

Additional information:

Special provisions	8, 146, 335, IB3, T4, TP1, TP29
Packaging exceptions	155
Packaging non bulk	203
Packaging bulk	241

IATA

UN number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A-diglycidylether polymer (MW < 700))
Transport hazard class(es)	9
Packing group	III
Environmental hazards	Yes
ERG code	9L

IMDG

UN number	UN3082
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UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A-diglycidylether polymer (MW<700))

Transport hazard class(es) 9

Packing group III

Environmental hazards

Marine pollutant Yes

EmS F-A, S-F

TDG

UN number UN3082

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A-diglycidylether polymer (MW<700))

Hazard class 9

Packing group III

Marine pollutant Yes

Special provisions 16

15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance (40 CFR 355, Appendix A) No

SARA 311/312 Hazardous chemical No

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15) Not controlled

Canadian regulations This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS status Controlled

WHMIS classification B3 - Combustible Liquids
D2B - Other Toxic Effects-TOXIC

WHMIS labeling



Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

State regulations This product does not contain a chemical known to the State of California to cause cancer birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

Not regulated.

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings
 Health: 2
 Flammability: 2
 Physical hazard: 0

NFPA ratings
 Health: 2
 Flammability: 2
 Instability: 0

Disclaimer This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.