


TEAM[®] Industrial Services

SAFETY DATA SHEET

1. Identification

Product identifier	TC-4B
Other means of identification	
Product code	803-0009
Recommended use	Industrial Leak Sealant.
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Company name	Team Industrial Services, Inc.
Address	200 Hermann Drive, Alvin, Texas 77511
Telephone	Not available.
E-mail	Not available.
Emergency phone number	CHEMTREC - 24 HOURS: 800-424-9300 (USA) International: +1 703-527-3887 (Collect)

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1
	Reproductive toxicity (fertility)	Category 2
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
OSHA defined hazards	Not classified.	
Label elements		

Signal word

Danger

Hazard statement

Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation. Suspected of damaging fertility.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response

If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
2,2'-Iminodiethylamine	111-40-0	30-90
Polyamido amine	68605-86-7	10-30
2-Piperazin-1-ylethylamine	140-31-8	5-15
3,6,9-triazaundecamethylenedi amine	112-57-2	5-15

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Components not listed are either non-hazardous or are below reportable limits.

4. First-aid measures

Inhalation Remove to fresh air. If breathing stops, provide artificial respiration. Get medical attention immediately.

Skin contact Remove contaminated clothing. Wash immediately with soap and water for at least 15 minutes. Get medical attention immediately! In case of allergic reaction or other skin disorders: Seek medical attention and bring along these instructions.

Eye contact Flush thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention immediately.

Ingestion Immediately rinse mouth and drink plenty of water or milk. Keep person under observation. Do not induce vomiting. If vomiting occurs, keep head low. Transport immediately to hospital and take these instructions.

Most important symptoms/effects, acute and delayed Skin and eye burns. May cause severe irritation or burns to the eyes, skin, gastrointestinal tract, and respiratory system. Sensitization. Upper respiratory tract irritation. Ingestion may cause irritation and malaise.

Indication of immediate medical attention and special treatment needed Treat symptomatically.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Chemical burns must be treated by a physician.

5. Fire-fighting measures

Suitable extinguishing media Extinguish with foam, carbon dioxide or dry powder.

Unsuitable extinguishing media No restrictions known.

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire fighting equipment/instructions Use standard firefighting procedures and consider the hazards of other involved materials. Cool material exposed to heat with water spray and remove it if no risk is involved.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Avoid inhalation of vapors and contact with skin and eyes. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see Section 8 of the SDS.

Methods and materials for containment and cleaning up Collect and dispose of spillage as indicated in Section 13 of the SDS. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Wipe up with absorbent material (e.g. cloth, fleece). Should not be released into the environment. Never return spills in original containers for re-use. Prevent product from entering drains.

Environmental precautions Prevent entry into waterways, sewer, basements or confined areas. Environmental manager must be informed of all major spillages.

7. Handling and storage

Precautions for safe handling

Provide adequate ventilation. Avoid inhalation of vapors and contact with skin and eyes. Wear personal protective equipment. Wash hands thoroughly after handling. Pregnant women should not work with the product, if there is the least risk of exposure. Persons susceptible for allergic reactions should not handle this product. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

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

US. ACGIH Threshold Limit Values

Components	Type	Value
2,2'-Iminodiethylamine (CAS 111-40-0)	TWA	1 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
2,2'-Iminodiethylamine (CAS 111-40-0)	TWA	4 mg/m ³ 1 ppm

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
3,6,9-triazaundecamethylenediamine (CAS 112-57-2)	TWA	5 mg/m ³ 1 ppm	Aerosol. Aerosol.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

No exposure standards allocated.

US - California OELs: Skin designation

2,2'-Iminodiethylamine (CAS 111-40-0) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2,2'-Iminodiethylamine (CAS 111-40-0) Skin designation applies.

US ACGIH Threshold Limit Values: Skin designation

2,2'-Iminodiethylamine (CAS 111-40-0) Can be absorbed through the skin.

US WEEL Guides: Skin designation

3,6,9-triazaundecamethylenediamine (CAS 112-57-2) Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

2,2'-Iminodiethylamine (CAS 111-40-0) Can be absorbed through the skin.

Appropriate engineering controls

General ventilation normally adequate. Ensure adequate ventilation, especially in confined areas. Provide easy access to water supply and eye wash facilities.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear approved chemical safety goggles. Use face shield in case of splash risk.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

Skin protection

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134.

Thermal hazards

In case of inadequate ventilation, use respiratory protection.

Wear appropriate thermal protective clothing, when necessary.

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. Observe any medical surveillance requirements.

9. Physical and chemical properties

Appearance	Blue liquid.
Physical state	Liquid.
Form	Liquid.
Color	Blue.
Odor	Odorless.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	> 149 °F (> 65 °C)
Flash point	> 212.0 °F (> 100.0 °C) Closed Cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	5500 cSt

10. Stability and reactivity

Reactivity	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	The product is stable and non reactive under normal conditions of use, storage and transport.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Exposure to temperatures of 572 °F (300°C) and above.
Incompatible materials	Strong acids. Strong oxidizing agents. Aldehydes. Ketones. Organic halides.
Hazardous decomposition products	Carbon dioxide. Carbon oxides. Nitrogen oxides. Ammonia.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Causes respiratory tract burns.
Skin contact	May cause an allergic skin reaction. Causes skin burns.
Eye contact	Causes eye burns.
Ingestion	Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics	Skin and eye burns. May cause severe irritation or burns to the eyes, skin, gastrointestinal tract, and respiratory system. Sensitization. Upper respiratory tract irritation. Ingestion may cause irritation and malaise.
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Information on toxicological effects

Acute toxicity Causes skin, eye and digestive tract burns.

Components	Species	Test Results
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2,2'-Iminodiethylamine (CAS 111-40-0)

Acute

Dermal

LD50	Rabbit	550 mg/kg
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Oral

LD50	Rat	2800 mg/kg
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2-Piperazin-1-ylethylamine (CAS 140-31-8)

Acute

Dermal

LD50	Rabbit	880 mg/kg
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Skin corrosion/irritation Causes skin burns.

Serious eye damage/eye irritation Causes eye burns.

Respiratory or skin sensitization

Respiratory sensitization No data available.

Skin sensitization May cause allergic skin reaction.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not classified.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

NTP Report on Carcinogens

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Reproductive toxicity Suspected of damaging fertility.

Specific target organ toxicity - single exposure No data available.

Specific target organ toxicity - repeated exposure No data available.

Aspiration hazard Not classified.

Chronic effects May cause allergic skin reaction.

Further information No data available.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
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2-Piperazin-1-ylethylamine (CAS 140-31-8)

Aquatic

Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 1950 - 2460 mg/l, 96 hours
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Persistence and degradability No data available.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

3,6,9-triazaundecamethylenediamine (CAS 112-57-2)	1.503
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Mobility in soil Not available.

Mobility in general The product is soluble in water.

Other adverse effects Not available.

13. Disposal considerations

Disposal instructions Dispose in accordance with all applicable regulations.

Hazardous waste code	D002: Corrosive waste
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

UN number	UN2735
UN proper shipping name	Polyamines, liquid, corrosive, n.o.s. (Modified polyamido amine, 2,2'-Iminodiethylamine)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB3, T7, TP1, TP28
Packaging exceptions	154
Packaging non bulk	203
Packaging bulk	241

IATA

UN number	UN2735
UN proper shipping name	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Modified polyamido amine, 2,2'-Iminodiethylamine)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	III
Environmental hazards	No
ERG Code	8L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN2735
UN proper shipping name	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Modified polyamido amine, 2,2'-Iminodiethylamine)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	III
Environmental hazards	
Marine pollutant	No
EmS	F-A, S-B
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

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

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)
 Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US 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. Massachusetts RTK - Substance List

2,2'-Iminodiethylamine (CAS 111-40-0)
 2-Piperazin-1-ylethylamine (CAS 140-31-8)
 3,6,9-triazaundecamethylenediamine (CAS 112-57-2)

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

2,2'-Iminodiethylamine (CAS 111-40-0)
 2-Piperazin-1-ylethylamine (CAS 140-31-8)
 3,6,9-triazaundecamethylenediamine (CAS 112-57-2)

US. Pennsylvania Worker and Community Right-to-Know Law

2,2'-Iminodiethylamine (CAS 111-40-0)
 2-Piperazin-1-ylethylamine (CAS 140-31-8)
 3,6,9-triazaundecamethylenediamine (CAS 112-57-2)

US. Rhode Island RTK

Not regulated.

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

Bisphenol A (CAS 80-05-7)

International Inventories

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

16. Other information, including date of preparation or last revision

Issue date 15-January-2016
Revision date -
Version # 01
Further information HMIS® is a registered trade and service mark of the NPCA.
HMIS® ratings Health: 3*
Flammability: 1
Physical hazard: 0

NFPA ratings



List of abbreviations

References

ESIS (European chemical Substances Information System)
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.