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Version 1

1. IDENTIFICATION

Product Identifier

Product Name T0173 Steam Line Conditioner

Other means of identification

SDS # TL-015

UN/ID No UN2735

Recommended use of the chemical and restrictions on use

Recommended Use Alkaline detergent. Steam line conditioner.

Details of the supplier of the safety data sheet

Supplier Address

Team Laboratory Chemical Corp.
 28650 State Hwy 34
 Detroit Lakes, MN 56501

Emergency Telephone Number

Company Phone Number 218-846-9490
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
 1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Clear liquid

Physical State Liquid

Classification

Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Reproductive toxicity	Category 2

Signal Word

Danger

Hazard Statements

Causes severe skin burns and eye damage
 Suspected of damaging fertility or the unborn child



Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Do not breathe dust/fume/gas/mist/vapors/spray
 Wash face, hands and any exposed skin thoroughly after handling

Precautionary Statements - Response

Immediately call a poison center or doctor/physician
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a poison center or doctor/physician
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Immediately call a poison center or doctor/physician
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Harmful to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
2-Diethylaminoethanol	100-37-8	10-20
Cyclohexylamine	108-91-8	<5

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

General Advice	Provide this SDS to medical personnel for treatment.
Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
Skin Contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a poison center or doctor/physician.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Contact a physician immediately if illness or adverse symptoms develop or continue.
Ingestion	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If conscious, give water or milk. Immediately call a poison center or doctor/physician.

Most important symptoms and effects

Symptoms	Causes severe skin burns and eye damage. Can cause irritation and burns to respiratory tract. Ingestion may cause severe burns to mouth, throat or stomach. May aggravate pre-existing skin conditions. Inhalation may aggravate respiratory problems.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Product generates heat upon addition of water, with possible spattering. Will react with some metals (e.g. aluminum, tin, zinc) to form flammable hydrogen gas. Corrosive material.

Hazardous Combustion Products Carbon monoxide. Carbon dioxide (CO₂).

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions	Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas. Only trained and properly protected personnel must be involved in clean-up operations.
Environmental Precautions	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewer, basements or confined areas.
Methods for Clean-Up	Do not flush to sewer. Neutralize with dilute solution of vinegar or citric acid. Cover liquid spill with sand, earth or other non-combustible absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on Safe Handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wear protective gloves/protective clothing and eye/face protection. Wash face, hands, and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
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Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed and store in a cool, dry and well-ventilated place. Keep out of the reach of children. Protect from freezing. Store locked up.

Incompatible Materials Strong oxidizing agents. Strong acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-Diethylaminoethanol 100-37-8	TWA: 2 ppm S*	TWA: 10 ppm TWA: 50 mg/m ³ (vacated) TWA: 10 ppm (vacated) TWA: 50 mg/m ³ (vacated) S*	IDLH: 100 ppm TWA: 10 ppm TWA: 50 mg/m ³
Cyclohexylamine 108-91-8	TWA: 10 ppm	(vacated) TWA: 10 ppm (vacated) TWA: 40 mg/m ³	TWA: 10 ppm TWA: 40 mg/m ³

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. Showers. Eyewash stations. Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Tight sealing safety goggles. Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection Impervious gloves and protective clothing are recommended. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash contaminated clothing before reuse. Wash face, hands and any exposed skin thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Odor	Not determined
Appearance	Clear liquid	Odor Threshold	Not determined
Color	Clear		
Property	Values	Remarks • Method	
pH	>13	100%	
Melting Point/Freezing Point	Not determined		
Boiling Point/Boiling Range	>100 °C / >212 °F		
Flash Point	Not flammable		
Evaporation Rate	Like water	(Ether = 1)	
Flammability (Solid, Gas)	Liquid- Not Applicable		
Upper Flammability Limits	Not determined		
Lower Flammability Limit	Not determined		

Vapor Pressure	Not determined
Vapor Density	Not determined
Specific Gravity	1.2
Water Solubility	Completely soluble
Solubility in other solvents	Not determined
Partition Coefficient	Not determined
Auto-ignition Temperature	Not determined
Decomposition Temperature	Not determined
Kinematic Viscosity	Not determined
Dynamic Viscosity	Not determined
Explosive Properties	Not determined
Oxidizing Properties	Not determined

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

See Sec. 7 Handling & Storage.

Incompatible Materials

Strong oxidizing agents. Strong acids.

Hazardous Decomposition Products

Carbon monoxide. Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes severe eye damage.

Skin Contact Causes severe skin burns.

Inhalation Do not inhale.

Ingestion Do not ingest.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-Diethylaminoethanol 100-37-8	= 1320 mg/kg (Rat)	= 1 mL/kg (Rabbit)	-
Cyclohexylamine 108-91-8	= 156 mg/kg (Rat)	= 277 mg/kg (Rabbit)	= 1000 ppm (Rat) 16 h

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Not classifiable as a human carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Cyclohexylamine 108-91-8		Group 3		

Legend

*IARC (International Agency for Research on Cancer)
Group 3 IARC components are "not classifiable as human carcinogens"*

Reproductive toxicity Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
2-Diethylaminoethanol 100-37-8	30: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	1660 - 1920: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 100 - 220: 96 h <i>Leuciscus idus</i> mg/L LC50 static		83.6: 48 h <i>Daphnia magna</i> Straus mg/L EC50
Cyclohexylamine 108-91-8	20: 96 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 static 20: 96 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50	44 - 90: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 470: 96 h <i>Brachydanio rerio</i> mg/L LC50 static	EC50 = 120 mg/L 30 min	49: 24 h <i>Daphnia magna</i> mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
2-Diethylaminoethanol 100-37-8	0.21
Cyclohexylamine 108-91-8	1.2

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Do not reuse container. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances. Based on package size, product may be eligible for limited quantity exception.

DOT

UN/ID No UN2735
Proper Shipping Name Amines, liquid, corrosive, n.o.s. (Cyclohexylamine, Diethylethanolamine)
Hazard Class 8
Packing Group II
Emergency Response Guide Number 153

IATA

UN/ID No UN2735
Proper Shipping Name Amines, liquid, corrosive, n.o.s. (Cyclohexylamine, Diethylethanolamine)
Hazard Class 8
Packing Group II

IMDG

UN/ID No UN2735
Proper Shipping Name Amines, liquid, corrosive, n.o.s. (Cyclohexylamine, Diethylethanolamine)
Hazard Class 8
Packing Group II
Marine Pollutant This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
2-Diethylaminoethanol	Present	X		Present		Present	X	Present	X	X
Cyclohexylamine	Present	X		Present		Present	X	Present	X	X

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*
- ENCS - Japan Existing and New Chemical Substances*
- IECSC - China Inventory of Existing Chemical Substances*
- KECL - Korean Existing and Evaluated Chemical Substances*
- PICCS - Philippines Inventory of Chemicals and Chemical Substances*
- AICS - Australian Inventory of Chemical Substances*

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Cyclohexylamine 108-91-8		10000 lb	

SARA 313

Not determined

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
2-Diethylaminoethanol 100-37-8	X	X	X
Cyclohexylamine 108-91-8	X	X	X

16. OTHER INFORMATION

NFPA

Health Hazards

Flammability

Instability

Special Hazards

3

0

0

X

HMIS

Health Hazards

Flammability

Physical Hazards

Personal Protection

Not determined

Not determined

Not determined

Not determined

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 Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet