



SAFETY DATA SHEET

Revision Date 01/30/2015

REVISION NUMBER: 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name RLT-216, Steam Condensate Corrosion Inhibitor

Other means of identification

Product code 120356

UN/ID No. 2357

Synonyms NONE

Recommended use of the chemical and restrictions on use

Recommended Use No information available.

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

Rochester Midland Corporation
155 Paragon Drive
Rochester, New York 14624 USA

Emergency telephone number

EMERGENCY TELEPHONE INFOTRAC: 1-800-535-5053
OUTSIDE U.S.: +1-352-323-3500

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|-----------------------------------|------------|
| Acute toxicity - Oral | Category 4 |
| Acute toxicity - Dermal | Category 4 |
| Skin corrosion/irritation | Category 1 |
| Serious eye damage/eye irritation | Category 1 |
| Reproductive Toxicity | Category 2 |
| Flammable liquids | Category 3 |
| Corrosive to metals | Category 1 |

Label elements

Emergency Overview

DANGER

Hazard statements

Harmful if swallowed
Harmful in contact with skin
Causes severe skin burns and eye damage
Suspected of damaging fertility or the unborn child
Flammable liquid and vapor
May be corrosive to metals

**Appearance** Light amber liquid.**Physical state** Liquid**Odor** Ammonia**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
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not breathe dust/fume/gas/mist/vapors/spray
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof electrical/ventilating/lighting/equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 Keep only in original container

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
 Call a POISON CENTER or doctor/physician if you feel unwell
 Wash contaminated clothing before reuse
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 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: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 Do NOT induce vomiting
 In case of fire: Use CO₂, dry chemical, or foam for extinction
 Absorb spillage to prevent material damage

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep cool
 Store in corrosive resistant container

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

No information available

Other Information

- Harmful to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

| PRODUCT COMPOSITION CAS# | CAS No. | % | TRADE SECRET |
|-----------------------------|----------|---------|--------------|
| CYCLOHEXYLAMINE | 108-91-8 | 58 - 62 | * |

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

| | |
|-----------------------|--|
| General advice | Immediately call a POISON CENTER or doctor/physician. |
| 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. Call a POISON CENTER or doctor/physician if you feel unwell. |
| Inhalation | 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. |
| Ingestion | IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. |

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, CO₂, water spray or regular foam.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact NONE.

Sensitivity to Static Discharge NONE.

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 Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Dike to contain. Pick up with absorbant material. Put in suitable container for disposal.

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

Avoid contact with eyes, skin and clothing. Do not breathe mist or vapors. DO NOT pressurize, weld, or heat containers. Do not reuse container. Read and follow label instructions. Keep out of reach of children.

Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near heat, sparks or flame. Empty containers may retain product residue, follow MSDS/label precautions even after container is emptied.

Incompatible materials

Do not mix with: Acids. Aluminum. Galvanized steel. Strong oxidents, such as nitric acid, or hypochlorites.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure Guidelines**

| PRODUCT COMPOSITION CAS# | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|-----------------------------|-------------|--|------------|
| CYCLOHEXYLAMINE 108-91-8 | TWA: 10 ppm | (vacated) TWA: 10 ppm (vacated) TWA: 40 mg/m ³ | - |

Appropriate engineering controls**ENGINEERING CONTROLS**

General mechanical and/or local exhaust as needed to meet exposure limits if mist in air. Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Goggles and face shield are recommended to minimize eye contact.

Skin and body protection

Chemical resistant gloves are recommended to minimize skin contact. Appropriate protective clothing as needed to prevent skin contact. It is the responsibility of the end user of this product to determine level of PPE required that is consistent with safe use of this product.

RESPIRATORY PROTECTION

Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties****Physical state**

Liquid

Appearance

Light amber liquid.

Color

No information available

Odor

Ammonia

Odor threshold

No information available

Property**Values****Remarks • Method****pH**

12.5

Melting point/freezing point

No information available

Boiling point / boiling range

100 °C / 212 °F

Flash point

53 °C / 128 °F

| | |
|------------------------------|--------------------------|
| Evaporation rate | 1.26 |
| Flammability (solid, gas) | No information available |
| Flammability Limit in Air | |
| Upper flammability limit: | No information available |
| Lower flammability limit: | No information available |
| Vapor pressure | 23 |
| Vapor density | > 1 |
| Specific gravity | 0.92 - 0.95 |
| Water solubility | No information available |
| Solubility in other solvents | No information available |
| Partition coefficient | No information available |
| Autoignition temperature | No information available |
| Decomposition temperature | No information available |
| Kinematic viscosity | No information available |
| Dynamic viscosity | No information available |
| Explosive properties | No information available |
| Oxidizing properties | No information available |

Other Information

| | |
|--------------------------|--------------------------|
| Softening point | No information available |
| VOC (EPA METH.24) (G/L): | No information available |
| Density | No information available |
| Bulk density | No information available |

10. STABILITY AND REACTIVITY**REACTIVITY**

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

CONDITIONS TO AVOID

Extremes of temperature and direct sunlight.

Incompatible materials

Do not mix with: Acids. Aluminum. Galvanized steel. Strong oxidents, such as nitric acid, or hypochlorites.

Hazardous Decomposition Products

Ammonia. Oxides of Carbon. Oxides of Nitrogen.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

| | |
|----------------------------|--|
| Product Information | Harmful if swallowed Causes severe skin burns and eye damage |
| Inhalation | Causes burns. |
| Eye contact | Corrosive to the eyes and may cause severe damage including blindness. |
| Skin contact | Harmful in contact with skin. Causes burns. |
| Ingestion | Harmful if swallowed. Causes burns. |

| PRODUCT COMPOSITION CAS# | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-----------------------------|-----------|-------------|-----------------|
|-----------------------------|-----------|-------------|-----------------|

| | | | |
|-----------------------------|--------------------|------------------------|---|
| CYCLOHEXYLAMINE 108-91-8 | = 11 mg/kg (Rat) | = 320 mg/kg (Rabbit) | - |
|-----------------------------|--------------------|------------------------|---|

Information on toxicological effects

Symptoms No information available.

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

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| PRODUCT COMPOSITION CAS# | ACGIH | IARC | NTP | OSHA |
|-----------------------------|-------|---------|-----|------|
| CYCLOHEXYLAMINE 108-91-8 | - | Group 3 | - | - |

Reproductive Toxicity Possible risk of impaired fertility. Possible risk of harm to the unborn child.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 833 mg/kg
ATEmix (dermal) 1833 mg/kg

12. ECOLOGICAL INFORMATION**Ecotoxicity**

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

| PRODUCT COMPOSITION CAS# | Algae/aquatic plants | Fish | Crustacea |
|-----------------------------|--|--|-----------|
| CYCLOHEXYLAMINE 108-91-8 | 20: 96 h Pseudokirchneriella subcapitata mg/L EC50 20: 96 h Pseudokirchneriella subcapitata mg/L EC50 static | 470: 96 h Brachydanio rerio mg/L LC50 static 44 - 90: 96 h Oncorhynchus mykiss mg/L LC50 | - |

Persistence and degradability

No information available.

Bioaccumulation

| PRODUCT COMPOSITION CAS# | Partition coefficient |
|-----------------------------|-----------------------|
| CYCLOHEXYLAMINE 108-91-8 | 1.2 |

Other adverse effects No information available

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.

14. TRANSPORT INFORMATION

| | |
|-----------------------------|---|
| UN/ID No. | 2357 |
| Proper shipping name | CYCLOHEXYLAMINE MIXTURE |
| Hazard Class | 8 |
| Subsidiary class | 3 |
| Packing Group | II |
| Description | 5 Liters (1.3 Gallons) and Less may be Classed as LTD. QTY. |

15. REGULATORY INFORMATION**International Inventories**

| | |
|----------------------|-----------------|
| TSCA | Complies |
| DSL/NDSL | Complies |
| EINECS/ELINCS | Complies |
| ENCS | Does not Comply |
| IECSC | Complies |
| KECL | Does not Comply |
| PICCS | Complies |
| AICS | Complies |

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**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

| | |
|--|-----|
| ACUTE HEALTH HAZARD | YES |
| CHRONIC HEALTH HAZARD | YES |
| FIRE HAZARD | YES |
| Sudden release of pressure hazard | No |
| REACTIVE HAZARD | YES |

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| PRODUCT COMPOSITION CAS# | Hazardous Substances RQs (in LBS) | U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs |
|-----------------------------|--------------------------------------|---|
| CYCLOHEXYLAMINE 108-91-8 | - | 10000 |

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

| PRODUCT COMPOSITION CAS# | NJRTK: | MARTK: | PARTK: |
|-----------------------------|--------|--------|--------|
| CYCLOHEXYLAMINE 108-91-8 | 0576 | Listed | Listed |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION**NFPA**

Health hazards 2

Flammability 2

Instability 0

Physical and Chemical Properties CORR

HMIS

Health hazards 2

Flammability 2

Physical hazards 0

Personal protection B

Prepared By

EH&S DEPARTMENT

Revision Date

01/30/2015

Revision Note

Disclaimer

The information provided in this Material 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 SDS ***