

Co. Reg No.: 199505807R

SAFETY DATA SHEET

DATE OF ISSUE: June 11, 2022

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Identification of the Substance

Product Code : CCT 102

Product Name : Condensate Control
Product Family : Water Treatment

Product Description : An aqueous solution of amine.

Supplier : Goldcrest International Singapore Pte Ltd
38 Tech Park Crescent
Singapore 638098
Tel: (65) 6862 6006
Fax: (65) 6863 3665
Email: sales@goldcrest.com.sg

SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification of the substance or mixture

Acute toxicity, Oral (Category 2)
Acute toxicity, Dermal (Category 3)
Skin corrosion (Category 1)
Serious eye damage (Category 1)
Reproductive toxicity (Category 2)

GHS Label Elements, including precautionary statements

Pictograms :



Signal word : Danger

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Hazard statements

H226: Flammable liquid and vapor.
H300: Fatal if swallowed.
H311: Toxic in contact with skin.
H314: Causes severe skin burns and eye damage.
H361: Suspected of damaging fertility or the unborn child.

GHS Precautionary Statements:

Prevention

P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting equipment.
P242: Use only non-sparking tools.
P264: Wash skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P361: Remove/Take off immediately all contaminated clothing.
P363: Wash contaminated clothing before reuse.
P370+378: In case of fire: Use ... for extinction.

Storage:

P403+235: Store in a well-ventilated place. Keep cool.
P405: Store locked up.

Disposal

P501: Dispose of contents/container to an approved waste disposal plant.

Other hazards: none

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SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

| CHEMICAL NAME | CAS NUMBER | CONCENTRATION % | GHS Hazard Category |
|-----------------|------------|-----------------|---|
| Cyclohexylamine | 08-91-8 | 15 - 20 | Flam. Liq.3; Acute Tox. Oral 2; Acute Tox. Dermal 3; Skin Corr. 1; Eye Dam. 1; Skin Sens. 1; Carc. 1B; Aquatic Acute 1; Reproductive Tox. 2 |

SECTION 4 - FIRST AID MEASURES

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Remove contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

If swallowed

Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.

Most important symptoms and effects, both acute and delayed

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin, Cough, Shortness of breath, Headache, Nausea.

SECTION 5 – FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxide (NO_x)

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Use water spray to cool unopened containers.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment including respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal according to local regulations.

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition- No smoking.

Conditions for safe storage, including any incompatibilities

Store this product in a cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

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SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational Exposure Limits

| Component | CAS-No | Value | Control parameters | Basis |
|-----------------|----------|-----------------|--------------------------------|--|
| Cyclohexylamine | 108-91-8 | PEL (long term) | 10 ppm 41 mg/m ³ | Singapore Workplace safety and Health Act – First Schedule Permissible Exposure Limits of Toxic Substances |

Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Use tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove remove technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state : Liquid at ambient temperature
Color : Clear pale yellow
Odor : Slightly fishy amine
Boiling point : ~ 96°C (Azeotropic)
Flash point (PMCC) : 62°C
Flammability Limits : Lower: 1.5
In Air (% by volume) : Upper: 9.6
Specific Gravity : 0.98 ± 0.03
Solubility in water : 100% soluble
(% by weight)
pH value at 25°C : 11 – 13

SECTION 10 – STABILITY AND REACTIVITY

Stability:

The product is stable under normal conditions of use and storage.

Conditions to avoid:

Keep away from heat, flames and sparks.

Incompatible materials

Strong oxidizing agents, Sodium hypochlorite, Organic acids, Mineral acids, Peroxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on toxicological effects

Based on the hazardous component Cyclohexylamine

Acute toxicity

LD50 Oral – rat – 11 mg/kg

LC50 Inhalation – rat – 7500 mg/m³

LD50 Dermal – rabbit – 277 mg/kg

Skin corrosion/irritation:

Skin – rabbit – Severe skin irritation – 24 h

Reproductive toxicity

Suspected human reproductive toxicant

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Potential health effects

Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion: May be fatal if swallowed and Causes burns.

Skin: Toxic if absorbed through skin. Causes skin burns.

Eyes: Causes eye burns.

Signs and symptoms of Exposure

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin, cough, shortness of breath, headache and nausea.

SECTION 12 - ECOLOGICAL INFORMATION

Based on the hazardous component Cyclohexylamine

This material is Harmful to aquatic life.

Toxicity

Toxicity to fish:

LC50 - *Leuciscus idus* (Golden orfe) – 44 mg/l – 96 h

Toxicity to daphnia and other aquatic invertebrates:

EC50 – *Daphnia magna* (Water flea) – 49 mg/l – 24 h

EC0 – *Daphnia magna* (Water flea) – 22 mg/l – 24 h

Toxicity to algae

EC50 – *Pseudokirchneriella subcapitata* (green algae) – 20 mg/l – 96 h

SECTION - 13 DISPOSAL CONSIDERATIONS

Methods of disposal

Burn in a chemical incinerator equipped with an afterburner and scrubber.

Offer surplus and non-recyclable solutions to a licensed disposal company.

Surplus or non-recyclable material should be disposed through a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

Transport Classification:

Land Transport ADR/RID

Hazard Class 8

UN number : UN 2735

Packing Group III

Proper Shipping Name : Amines, Liquid, Corrosive, N.O.S.

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Sea Transport (IMDG)

Hazard Class 8
UN Number : UN 2735
Packing Group III
Proper Shipping Name : Amines, Liquid, Corrosive, N.O.S.

Air Transport (ICAO/IATA)

Hazard Class 8
UN Number : UN 2735
Packing Group III
Proper Shipping Name : Amines, Liquid, Corrosive, N.O.S.

SECTION 15 – REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Notification status

Cyclohexylamine is on the inventory, or in compliance with the inventory of the following:
AICS, DSL, ENCS, IECSC, ISHL, KECL, NZIoC, PICCS.

SECTION 16 - OTHER INFORMATION

The information contained herein relates only to the specific material identified. This information is accurate and reliable on the date of this safety data sheet, but no warranty or representation is made as to the accuracy, reliability or completeness of information. It is offered solely for your consideration, investigation and verification. Before using this product, read all information provided.