

物質安全資料表(MSDS)

1. Identification of Substance /Preparation and Company

- 1.1 Product Name : Heavy metal scavenger HM-12
- 1.2 Another Name : -
- 1.3 Recommend Usage : Wastewater treatment
- 1.4 Information of Manufacturer or Supplier :
GRACESS INTERNATIONAL CO., LTD. /
29F-3, No. 86, Sec. 1, Beixin Rd., Xindian Dist., New Taipei City 231003, Taiwan /+886-2-2673-3998
- 1.5 Emergency Phone/Fax : +886-2-2673-3998/+886-2-2673-3995

2.Hazard Identification Data

- 2.1 Hazard Classification : -
- 2.2 Signal Word(s): -
Hazard Statements: The dust may irritate the respiratory tract, eyes, and skin.
Pictograms: -
Precautionary Statements: If eye contact, please flush with plenty of water and go for medication.
Description of other hazards: -
- 2.3 Environmental effects : less damage to the environment

3. Composition/ Information of Ingredients

Mixture : -		
Chemical name	CAS Number	%
Sodium diethyldithiocarbamate trihydrate	20624-25-3	41%

4. First-Aid Measures

- 4.1 Skin contact : Wash off immediately with soap and plenty of water. Get medical attention immediately.
Eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Inhalation : Remove to fresh air. Call a physician immediately.
Ingestion : Drink plenty of water or saline to make the patient vomit and receive medical treatment immediately.
- 4.2 Most important symptoms and effects : -
- 4.3 Protection of first-aid person : -
- 4.4 Suggestion to doctors : -

5. Fire-fighting measures

- 5.1 Suitable extinguishing agents : water spray 、 dry chemical 、 carbon dioxide (CO2) 、 alcohol-resistant foam 、 halide 、 dry sand.
- 5.2 Applicable fire-fighting methods : Combustion, with a strong irritant. Remove all sources of ignition. Use a fire extinguisher to extinguish the fire.
- 5.3 Special protective equipment for firefighters : Firefighters must wear full-body fire and explosion protective clothing and extinguish the fire on the windward side. Remove the container from the fire to the empty area when extinguishing the fire. according to the reasons for the fire, selecting the appropriate type of fire

extinguisher.

5.4 Hazardous features: If exposed to the air for a long time, the substance will generate a stinky egg smell.

6. Accidental release measures

- 6.1 Personal precautions : Wear protective clothing, anti-stick to the skin, mucous membranes, clothing or into the eyes.
- 6.2 Measures of environmental protection : Forbid into drain and river. when this product is diluted with a large amount of water, prevent contaminated wastes from being released into the environment without appropriate treatment.
- 6.3 Measures of cleaning/collecting : with dry sand, soil or silk and other absorption after recovery to the sealed empty container.
- 6.4 To prevent the secondary disaster method : To avoid the container fall 、 strong impact 、 drag and drop. Check the packing regularly to ensure that it is in good condition.

7. Handling and storage

- 7.1 Handling: Prevent packaging falling, strong punch, and drag. Ensure adequate ventilation. Avoid contact with heat, sparks, and flame. Wash thoroughly after handling.
- 7.2 Storage: Store at 0 °C ~ 40 °C places. Store in a segregated and approved area. Keep the container in a cool, well-ventilated area. Keep the container tightly sealed.

8. Exposure controls/personal protection

- 8.1 General protective and hygienic measures : -
Breathing equipment: -
Protection of skin: Please wear protective clothes
Protection of hands: Safety rubber gloves
Eye protection: Safety goggles
- 8.2 Controls parameter :
PC-TWA/PC-STEL/PC-MAC: -/ -/ -/ -

9. Physical and chemical properties

- | | | | |
|--------------------------------|------------------------------|---------------------------------|---|
| • Appearance : | Liquid | • Solid content (%) : | |
| • Color : | Colorless to light yellowish | • Ionicity: | |
| • Odor : | Odorless | • PH value : | ≥11.5 |
| • Flash Point (Closed cup) : | | • Boiling Point/Boiling Range : | 101°C |
| • Flammability(Solid, Gas) : | | • Explosion limits : | |
| • Decomposition temperature : | | • Density : | ≥1.12 g/cm ³ , below 20°C |
| • Autoignition temperature : | | • Solubility : | Soluble in water, ethanol, slightly soluble in benzene and chloroform |
| • Vapor pressure (25°C): | | • Chemical reactivity : | |
| • Proportion : | | • Evaporation Rate : | - |
| • Melting point: | -3°C | • Free alkali volume: | 0.45% |

10. Stability and Reactivity

- 10.1 Reactions : Follow the correct procedure for saving, hazardous polymerization will not occur.
- 10.2 Stability : Contact with moisture can be decomposed.

11. Toxicological Information

- 11.1 Acute toxicity : -
- 11.2 Potential route of exposure/potential health effects
- Skin:
 - Eye:
 - Inhalation:
 - Ingestion:
 - Carcinogenic effects:
 - Mutagenic effects:
 - Reproductive toxicity:
 - Sensitization:
 - Target organs:
- 11.3 Irritation: Close to the chemical will smell the irritate odors.

12. Ecological Information

- 12.1 Ecotoxicity : No data available
- 12.2 Mobility:
- 12.3 Biodegradation:
- 12.4 Bioaccumulation:

13. Disposal Considerations

- 13.1 Product disposal: Contact a licensed professional waste disposal service to dispose of this material.
- 13.2 Packaging disposal: Contact a licensed professional waste disposal service to dispose of this material.

14. Transport Information

- 14.1 UN-number: Non dangerous goods. IATA Not restricted for transport.
- 14.2 Transport hazard class(es): Not restricted for transport.
- 14.3 Marine pollutant: No information.
- 14.4 Special transport way and precautions: No information.
- 14.5 Transport specific safety : Prevent packaging damage, corrosion, leakage, wetting. Prevent falling, drop, damage during shipment.

15. Regulatory Information

Suitable regulations: -

16. Other Information

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LIMITED WARRANTY INFORMATION - PLEASE READ BEFORE ANY APPLICATION:

- The data presented in this brochure are in accordance with the present state of our knowledge but do not absolve the user from carefully checking all supplies immediately on receipt.
- We reserve the right to alter product constants within the scope of technical progress or new developments.
- The recommendations made in this brochure should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used.
- The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights or patents and, if necessary, clarifying the position.
- Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.
- We disclaim any responsibility for any dispute regarding product quality between agent and end user.
- Our sole warranty is that our products will meet the sales specifications in effect at the time of shipment.