1 Identification of the substances/ mixture and of the company/ undertaking

1.1 Product Identifiers

Product Number: GRM371
Product Name: Cadmium nitrate tetrahydrate, Hi-AR™/ACS
CAS No.: 10022-68-1
EC No.: 233-710-6

1.2 Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Relevant identified uses
Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Produced by: HiMedia Laboratories Private Limited
Address: 23, Vadhani Industrial Estate, LBS Marg, Ghatkopar (W), Mumbai - 400 086, India
Tel. No.: +91-22-2500 0970, +91-22-2500 1607
Fax No.: +91-22-25002468
Mail Id: info@himedialabs.com
Website: www.himedialabs.com

1.4 Emergency Tel. No.
Emergency Tel. No.: Please contact the regional HiMedia representation in your country

2 Hazards Identification

2.1 Classification of the substance or mixture

CLP Classification-Regulation (EC) No. 1272/2008[EU-GHS/CLP]
Acute toxicity, Oral (Category 3), H301
Acute toxicity, Inhalation (Category 2), H330
Acute toxicity, Dermal (Category 4), H312
Germ cell mutagenicity (Category 1B), H340
Carcinogenicity (Category 1B), H350
Specific target organ toxicity - repeated exposure, Oral (Category 1), Kidney, Bone, H372
Long-term (chronic) aquatic hazard (Category 1), H410

2.2 Label elements

Labeling according to Regulation (EC) No.1272/2008

Pictogram
Signal word: Danger
Hazard Statement(s)
H301 Toxic if swallowed.
H312 Harmful in contact with skin.
H330 Fatal if inhaled.
H340 May cause genetic defects.
H350 May cause cancer.
H372 Causes damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects
Precautionary Statement(s)

P201 Obtain special instructions before use.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310+P330 IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
P302+P352+P312 IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/doctor if you feel unwell.
P304+P340+P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

2.3 Other Hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3 Composition/Information On Ingredients

3.1 Substances
Molecular Formula: Cd(NO₃)₂·4H₂O
Molecular Weight: 308.48
CAS No.: 10022-68-1
EC No.: 233-710-6

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium nitrate tetrahydrate, Hi-AR™/ACS</td>
<td>As Per EC Regulation 1272/2008 Acute Tox. 3; Acute Tox.2; Acute Tox. 4; Muta. 1B;Carc. 1B; STOT RE 1;Aquatic Acute 1; Aquatic Chronic 1; H301, H330, H312, H340, H350, H372, H400, H410</td>
<td>100%</td>
</tr>
</tbody>
</table>

CAS No.: 10022-68-1
EC No.: 233-710-6

For the full text of the H-Statements and classification mentioned in this Section, see Section 16.

4 First Aid Measures

4.1 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
Wash with plenty of soap and water. Consult a physician.

In case of eye contact
Rinse immediately with plenty of water for at least 15 minutes. Consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.
4.3 Indication of immediate medical attention and special treatment needed
No data available

5 Fire Fighting Measures
5.1 Extinguishing media
*Suitable extinguishing media*
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
*Unsuitable extinguishing media*
No data available.

5.2 Special hazards arising from the substance or mixture
Nitrogen oxides (NOx), Cadmium/cadmium oxides
No data available

5.3 Precautions for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary

5.4 Further information
No data available

6 Accidental Release Measures
6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

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

6.3 Methods and materials for containment and cleaning up
Sweep up and shovel. 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 (see section 13). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see Section 13.

7 Handling and Storage
7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. *Recommended Storage Temperature*: Below 30°C

7.3 Specific end uses
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.
8 Exposure Controls/Personal Protection
8.1 Control parameters
Components with workplace control parameters
8.2 Exposure controls
Appropriate engineering controls
Handle in accordance to general industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment
Hygiene measure
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with the product.

Eye/face protection
Faceshield and safety goggles.

Skin protection
Handle with gloves.

Body protection
Complete suit protecting against chemicals.

Respiratory protection
Air-purifying respirators.

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

9 Physical and chemical properties
9.1 Information on basic physical and chemical properties
Appearance Colourless to white crystals or powder or solid or chunks
Odour No data available
Odour Threshold No data available
pH No data available
Melting/freezing point No data available
Initial boiling point and boiling range No data available
Flash point No data available
Upper/lower flammability or explosive limits No data available
Evaporation rate No data available
Flammability (Solid, gas) No data available
Vapour pressure No data available
Relative density No data available
Water Solubility No data available
Partition coefficient: n-octanol/water No data available
Autoignition Temperature No data available
Decomposition Temperature No data available
Viscosity No data available
Explosive properties No data available
Oxidizing properties No data available
Vapour density No data available
Thermal decomposition No data available
9.2 Other safety information
No data available

10 Stability and Reactivity
10.1 Reactivity
No data available
10.2 Chemical stability
Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions
No data available
10.4 Conditions to avoid
Incompatible material
10.5 Incompatible materials
Reducing agents, Organic metals, Phosphorus
10.6 Hazardous decomposition products
Other decomposition products - refer section 5.2.
In the event of fire - refer section 5.

11 Toxicological Information
11.1 Information on toxicological effects
Acute toxicity
No data available
Skin corrosion/irritation
No data available
Serious eye damage/eye irritation
No data available
Respiratory or skin sensitisation
No data available
Germ cell mutagenicity
No data available
Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity
No data available
Specific target organ toxicity- single exposure
No data available
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available
Additional Information
RTECS : EV1850000
12 Ecological Information
   12.1 Toxicity
       No data available
   12.2 Persistence and degradability
       No data available
   12.3 Bioaccumulative potential
       No data available
   12.4 Mobility in soil
       No data available
   12.5 PBT and vPvB assessment
       PBT and vPvB assessment not available Chemical safety assessment is not required
   12.6 Other adverse effects
       Discharge into the environment must be avoided.

13 Disposal Considerations
   13.1 Waste treatments methods
       Product
       Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustive solvent and burn in chemical incinerator equipped with an afterburner and scrubber.
   13.2 Contaminated packaging
       Dispose of as unused product.

14 Transport Information
   14.1 UN-No
       ADNR : 2570 ADR : 2570 IATA_C : 2570 IATA_P : 2570 IMDG : 2570 RID : 2570
   14.2 UN proper shipping name
       ADNR : CADMIUM COMPOUND (Cadmium nitrate tetrahydrate)
       ADR : CADMIUM COMPOUND (Cadmium nitrate tetrahydrate)
       IATA_C : CADMIUM COMPOUND (Cadmium nitrate tetrahydrate)
       IATA_P : CADMIUM COMPOUND (Cadmium nitrate tetrahydrate)
       IMDG : CADMIUM COMPOUND (Cadmium nitrate tetrahydrate)
       RID : CADMIUM COMPOUND (Cadmium nitrate tetrahydrate)
   14.3 Transport hazard class(es)
   14.4 Packaging group
   14.5 Environmental hazards
       ADNR : No ADR : No IMDG : Marine Pollutant : Yes IATA_C : No IATA_P : No RID : No
   14.6 Special precautions for use
       No data available
14.6  Special precautions for use
No data available

15  Regulatory Information
This safety datasheet complies with the requirements of Regulation(EC) No. 1907/2006.

15.1  Safety health and environment regulations/legislation specific for the substance or mixture
No data available

15.2  Chemical Safety Assessment
No data available

16  Other information
Text of H-Statements and EUH-Phrases mentioned in section 3
H301  Toxic if swallowed.
H312  Harmful in contact with skin.
H330  Fatal if inhaled.
H340  May cause genetic defects.
H350  May cause cancer.
H372  Causes damage to organs through prolonged or repeated exposure.
H410  Very toxic to aquatic life with long lasting effects.

Further Information

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The information given in this safety data sheet is believed to be correct yet does not claim to be all inclusive. This document is intended only as a guide for appropriate precautionary handling of the material by properly trained individuals, information here being commensurate with the present state of our knowledge regarding the manner and conditions of use, handling, storage or disposal. The information provided herein shall not be considered as guarantee of the properties of the product. HiMedia Laboratories, shall not be held liable for any damage resulting from improper handling or contact with the above product. Unless explicitly stated on the product or in any of the documentation accompanying the product, it is intended for research or testing purpose only and is not to be used for any other purpose.