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MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Product identifiers

Product Name : Ammonium nickel sulphate, GR 99%+ Product Code : A 2237 CAS No: 7785-20-8

1.2. Relevant identified uses of the substance or mixture and uses advised against Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet Company identification OTTO CHEMIE PVT LTD No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road, Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

1.4. Emergency telephone number Phone no. : + 91 98200 41841 (10 : 00 am - 06 : 00 pm)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Acute toxicity, (Category 4) H302: Harmful if swallowed. Acute toxicity, (Category 4) H332: Harmful if inhaled. Respiratory sensitization, (Category 1) H334: May

Skin sensitization, (Category 1)

(Category 2)

Carcinogenicity, (Category 1A) Reproductive toxicity, (Category

1B) Specific target organ toxicity repeated exposure, (Category 1)

Short-term (acute) aquatic hazard, (Category 1) Long-term (chronic) aquatic

hazard, (Category 1) 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Danger Hazard Statements H302 + H332 H H317 H334 H317 H341 H350 H360 H360 M H372 C exposure.

H410 Precautionary Statements May cause allergy or asthma symptoms or breathing difficulties if inhaled. H317: May cause an allergic skin reaction. Germ cell mutagenicity, H341: Suspected of causing genetic defects H350: May cause cancer. H360: May damage fertility or the unborn child.

H372:Causes damage to organs through prolonged or repeated exposure. H400:Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

Harmful if swallowed or if inhaled. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing genetic defects. May cause cancer. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated Very toxic to aquatic life with long lasting effects.

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P202 Do not handle until all safety precautions have been read and understood. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell P302 + P352 IF ON SKIN: Wash with plenty of water. P308 + P313 IF exposed or concerned: Get medical advice/ attention. Supplemental Hazard none Statements Restricted to professional users. Reduced Labeling (<= 125 ml) Pictogram Signal Word Danger Hazard Statements May cause allergy or asthma symptoms or breathing difficulties H334 if inhaled. May cause an allergic skin reaction. H317 H341 Suspected of causing genetic defects. H350 May cause cancer. H360 May damage fertility or the unborn child. H372 Causes damage to organs through prolonged or repeated exposure. **Precautionary Statements** Do not handle until all safety precautions have been read and P202 understood P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. IF ON SKIN: Wash with plenty of water. P302 + P352 P308 + P313 IF exposed or concerned: Get medical advice/ attention. Supplemental Hazard Statements none 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. Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. **SECTION 3: Composition/information on ingredients** 3.1 Substances Synonyms : Nickel ammonium sulfate Formula : H8N2NiO8S2 · 6H2O 394,99 g/mol Molecular weight CAS-No. : 7785-20-8

 Component
 Classification
 Concentration

 Diammonium nickel bis(sulphate) hexahydrate
 Acute Tox. 4; Resp. Sens. 1; Skin
 <= 100 %</td>

 CAS-No. 7785-20-8 EC-No. 239-793-5
 Acute Tox. 4; Resp. Sens. 1; Skin
 <= 100 %</td>

 STOT RE 1; Aquatic Acute 1; Aquatic
 STOT RE 1; Aquatic
 <= 100 %</td>

DISCLAIMER

EC-No.: 239-793-5

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Chronic 1; H302, H332, H334, H317, H341, H350, H360, H372, H400, H410 Concentration limits: >= 1 %: STOT RE 1, H372; 0,1 - < 1 %: STOT RE 2, H373; >= 0,01 %: Skin Sens. 1, H317;	
M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 10	

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

SECTION 4: First aid measures

4.1 Description of first-aid measures General advice First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance. If inhaled After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen. In case of skin contact In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician. In case of eye contact After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses If swallowed After swallowing: immediately make victim drink water (two glasses at most). 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 labelling (see section 2.2) and/or in section 11
- 4.3 Indication of any immediate medical attention and special treatment needed
- No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment. Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Nitrogen oxides (NOx)

Sulfur oxides

Nickel/nickel oxides

Not combustible.

Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

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6.3 Methods and materials for containment and cleaning up Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts. 6.4 Reference to other sections For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling Advice on safe handling Work under hood. Do not inhale substance/mixture. Hygiene measures Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2. 7.2 Conditions for safe storage, including any incompatibilities Storage conditions Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to gualified or authorized persons. Storage class Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects 7.3 Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated SECTION 8: Exposure controls/personal protection 8.1 Control parameters Ingredients with workplace control parameters 8.2 Exposure controls

Personal protective equipment

Eve/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact **Body Protection**

protective clothing Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P3

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties crystalline

a) Physical state b) Color green c) Odor d) Melting point/freezing point

No data available Melting point/range: 85 - 89 °C - lit.

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e) Initial boiling point and boiling range
f) Flammability (solid, gas)
g) Upper/lower
flammability or explosive limits
h) Flash point
i) Autoignition
temperature
j) Decomposition
temperature
k) pH
l) Viscosity

m) Water solubility n) Partition coefficient: n-octanol/water o) Vapor pressure p) Density Relative density q) Relative vapor density r) Particle characteristics s) Explosive properties t) Oxidizing properties 9.2 Other safety information

No data available

No data available

No data available

Not applicable No data available

No data available

No data available Viscosity, kinematic: No data available Viscosity, dynamic: No data available No data available No data available

No data available No data available No data available

No data available

No data available No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No data available
10.2 Chemical stability
The product is chemically stable under standard ambient conditions (room temperature).
10.3 Possibility of hazardous reactions
No data available
10.4 Conditions to avoid no information available
10.5 Incompatible materials
Strong oxidizing agents
10.6 Hazardous decomposition products
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals: Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg Inhalation LC50 Rat: > 50mg/L. Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant). Special Remarks on Toxicity to Animals: Not available. Special Remarks on other Toxic Effects on Humans: Not available. Special Remarks on other Toxic Effects on Humans: Not available.

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Otto Chemie Pvt Ltd - provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product

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SECTION 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 Results of PBT and vPvB assessm				
This substance/mixture contains no com				
bioaccumulative and toxic (PBT), or very	y persistent and very bioaccun	nulative (vPvB) at		
levels of 0.1% or higher.				
12.6 Endocrine disrupting properties Product:				
Assessment :	The substance/mixture does	not contain components		
	considered to have endocrine disrupting properties			
	according to REACH Article 5			
	Delegated regulation (EU) 2017/2100 or Commission			
10.7 Other a drama offerste	Regulation (EU) 2018/605 at	levels of 0.1% or higher.		
12.7 Other adverse effects No data available	//			
SECTION 13: Disposal considerations	s 6			
13.1 Waste treatment methods				
Product				
See www.retrologistik.com for processe		icals and		
containers, or contact us there if you have	ve further questions.			
SECTION 14: Transport information	1 Mars			
14.1 UN number				
ADR/RID: -	IMDG: -	IATA: -		
14.2 UN proper shipping name				
	erous goods			
IMDG: Not dangerous goods				
IATA: Not dang 14.3 Transport hazard class(es)	erous goods			
ADR/RID: -	IMDG: -	IATA: -		
14.4 Packaging group	inibo.	<i></i>		
ADR/RID: -	IMDG: -	IATA: -		
14.5 Environmental hazards				
ADR/RID: no	IMDG Marine pollutant: no	IATA: no		
14.6 Special precautions for user				
No data available Further information				
Not classified as dangerous in the mean	ing of transport regulations			
Not classified as dangerous in the mean	ing of transport regulations.			
SECTION 15: Regulatory information				
15.1 Safety, health and environmental re-	egulations/legislation specific f	for the		
substance or mixture				
This material safety data sheet complies with the requirements of Regulation (EC) No.				
1907/2006.				
Authorisations and/or restrictions on use		ulphata)		
REACH - Restrictions on the manufacture, : Diammonium nickel bis(sulphate) placing on the market and use of certain				
dangerous substances, mixtures and art				
(Annex XVII)				
hexahydrate				

National legislation Seveso III: Directive 2012/18/EU of the

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European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. E1 ENVIRONMENTAL HAZARDS E1 ENVIRONMENTAL HAZARDS Other regulations Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work. 15.2 Chemical Safety Assessment For this product a chemical safety assessment was not carried out

Section 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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