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### MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1. Product identifiers

Product name: Hydroxylamine sulphate, GR 99%+ Product Code: H 1617 CAS No : 10039-54-0

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
101, Aarkay Ruby Industrial Estate(1B), Opp Shree Narayan Industrial Estate, Chinchpada, Vasai East, Waliv, Maharashtra 401208.
Email info@ottokemi.com

1.4. Emergency telephone number Phone no. : + 91 22 2207 0099 (9:00am - 6:00 pm)

#### **SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture Corrosive to Metals, (Category 1) H290: May be corrosive to metals. H302: Harmful if swallowed. Acute toxicity, (Category 4) H312: Harmful in contact with skin. Acute toxicity, (Category 4) Skin irritation, (Category 2) Eye irritation, (Category 2) H315: Causes skin irritation. H319: Causes serious eye irritation. Skin sensitization, (Category 1) H317: May cause an allergic skin reaction. H351: Suspected of causing cancer. Carcinogenicity, (Category 2) Specific target organ toxicity -H373: May cause damage to organs repeated exposure, (Category 2), through prolonged or repeated exposure if Blood swallowed. Short-term (acute) aquatic H400: Very toxic to aquatic life. hazard, (Category 1) 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Warning Hazard Statements May be corrosive to metals. H290 H302 + H312 Harmful if swallowed or in contact with skin. H315 Causes skin irritation H317 May cause an allergic skin reaction. H319 Causes serious eve irritation. H351 Suspected of causing cancer. H373 May cause damage to organs (Blood) through prolonged or repeated exposure if swallowed. Very toxic to aquatic life. H400 **Precautionary Statements** Avoid release to the environment. P273 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. IF SWALLOWED: Call a POISON CENTER/ doctor if you feel P301 + P312 unwell. IF ON SKIN: Wash with plenty of water.Call a POISON CENTER/ P302 + P352 + P312 doctor if you feel unwell. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P308 + P313 Supplemental Hazard Statements Reduced Labeling (<= 125 ml)	IF exposed or concerned: 0 none	Get medical advice/ attention.			
Pictogram Signal Word Hazard Statements	Warning				
H317	May cause an allergic skin				
H351 Precautionary Statements	Suspected of causing canc	er.			
P280	Wear protective gloves/ pro	otective clothing/ eye protection/ face			
P308 + P313		Get medical advice/ attention.			
Supplemental Hazard	none				
Statements 2.3 Other hazards					
	oonents considered to be either persistent,				
	persistent and very bioaccumulative (vPvB) at				
levels of 0.1% or higher.					
Ecological information:					
	components considered to have endocrine H Article 57(f) or Commission Delegated regulat	tion			
	on (EU) 2018/605 at levels of 0.1% or higher.	lion			
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	on (EU) 2018/605 at levels of 0.1% or higher.				
SECTION 2: Composition/information					
SECTION 3: Composition/information 3.1 Substances	on ingredients				
	ammonium sulfate				
Molecular weight : 164,14 g/mol					
CAS-No. : 10039-54					
EC-No. : 233-118-	8				
Component	Classification	Concentration			
bis(hydroxylammonium)sulphate					
CAS-No. 10039-54-0	Met. Corr. 1; Acute Tox. 4; Skin Irrit. 2;	<= 100 %			
EC-No. 233-118-8	Eye Irrit. 2; Skin Sens. 1; Carc. 2; STOT				
	RE 2; Aquatic Acute 1; H290, H302,				
	H312, H315, H319, H317, H351, H373,				
	H400 M-Factor - Aquatic Acute: 1				

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
Show this material safety data sheet to the doctor in attendance.
If inhaled
After inhalation: fresh air. Call in physician.
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.

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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 Not combustible. In the event of decomposition: danger of explosion! Risk of dust explosion. Avoid shock and friction. 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 inhalation of dusts. 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. 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 dry. 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 No metal containers. Tightly closed and away from sources of ignition and heat. Observe national regulations. Storage class Storage class (TRGS 510): 4.1A: Other explosive hazardous materials 7.3 Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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### 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 Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L 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). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L **Body Protection** protective clothina 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 a) Physical state crystalline b) Color colorless c) Odor No data available d) Melting Melting point/range: 170 °C - dec. point/freezing point e) Initial boiling point No data available and boiling range f) Flammability (solid, No data available gas) g) Upper/lower No data available flammability or explosive limits h) Flash point No data available i) Autoignition No data available temperature

No data available

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j) Decomposition

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temperature k) pH I) 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 Viscosity, kinematic: No data available Viscosity, dynamic: No data available 587 g/l at 20 °C - soluble No data available

No data available 1,88 g/cm3 at 20 °C No data available No data available

No data available

No data available No data available

**SECTION 10: Stability and reactivity** 

10.1 Reactivity

sensitive to shock

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions Violent reactions possible with:

nitrites

nitrates

Powdered metals

Exothermic reaction with: Oxidizing agents

Aldehydes

Ketones

A risk of explosion and/or of toxic gas formation exists with the following substances: bases

10.4 Conditions to avoid
Strong heating (explosive decomposition).
no information available
10.5 Incompatible materials
MetalsStrong 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 Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

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### **SECTION 12: Ecological information**

	ological information		
12.1 Toxicity			
		:head minnow) - 1 - 10 mg/l - 96 h	
Remarks: (Externa			
Toxicity to daphnia	à		
and other aquatic			
invertebrates			
	agna (Water flea) - 1,62 mg/l	- 48 h	
Remarks: (Externa			
		atus (green algae) - 0,86 mg/l - 96 h	
Remarks: (Externa	al MSDS)		
12.2 Persistence a	and degradability		
No data available			
12.3 Bioaccumula	tive potential		
No data available			
12.4 Mobility in so	il		
No data available			
12.5 Results of PE	3T and vPvB assessment		
This substance/mi	xture contains no components	s considered to be either persistent,	
		ent and very bioaccumulative (vPvB) a	t V Martin
levels of 0.1% or h			
12.6 Endocrine dis			
Product:			
Assessment	: The substance/mixture doe	es not contain components	
	considered to have endocrin		
	according to REACH Article		
	Delegated regulation (EU) 2	2017/2100 or Commission	
	Regulation (EU) 2018/605 a	at levels of 0.1% or higher.	
12.7 Other advers	e effects		
	environment must be avoided	i.	
0		Mark I	
SECTION 13: Dis	posal considerations	1 - 6	Y I I I I I I I I I I I I I I I I I I I
13.1 Waste treatm			
No data available			
SECTION 14: Tra	nsport information		
14.1 UN number			
ADR/RID: 2865		IMDG: 2865	IATA: 2865
14.2 UN proper sh	ipping name		
ADR/RID	: HYDROXYLAMINE SULPI	HATE	
IMDG	: HYDROXYLAMINE SULP		
IATA	: Hydroxylamine sulphate		
14.3 Transport ha			
ADR/RID: 8		IMDG: 8	IATA: 8
14.4 Packaging gr	oup	IMDG: 0	
ADR/RID: III	oup	IMDG: III	IATA: III
14.5 Environmenta	al hazards	IMDO: III	
ADR/RID: yes	in nazarda	IMDG Marine pollutant: yes	IATA: no
14.6 Special preca	autions for usor	IMDO Marine polititant. yes	
Tunnel restriction			
Further information			
	n : No data availabl	e	
SECTION 45. Do	vulatory information		
	gulatory information	a llagislation apositio for the	
•	n and environmental regulation	is/legislation specific for the	
substance or mixtu		- nonvinencents of Demulation (EC) No	
	y uata sheet complies with the	e requirements of Regulation (EC) No.	
1907/2006.			
	l/or restrictions on use		
National legislation			
Seveso III: Directiv	ve 2012/18/EU of the		
Example P P			

European Parliament and of the Council

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on the control of major-accident hazards involving dangerous substances. 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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