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### MATERIAL SAFETY DATA SHEET (MSDS)

### **SECTION 1. Product identifiers**

Product name: Holmium(III) chloride, hexahydrate, 99.9% Product Code: H 1765 CAS No : 14914-84-2

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 <u>info@ottokemi.com</u>

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 Skin irritation, (Category 2) Eye irritation, (Category 2) Specific target organ toxicity single exposure, (Category 3), Respiratory system 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Hazard Statements H315 H319 H335 Precautionary Statements P261 P264 P271 P280 P302 + P352 P305 + P351 + P338

Supplemental Hazard Statements Reduced Labeling (<= 125 ml) Pictogram Signal Word Hazard Statements Precautionary Statements Supplemental Hazard Statements 2.3 Other hazards H315: Causes skin irritation. H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

#### Warning

Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Avoid breathing dust. Wash skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/ eye protection/ face protection. IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. none

Warning none none 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

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(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	
Formula	: CI3Ho · 6H2O
Molecular weight	: 379,38 g/mol
CAS-No.	: 14914-84-2
EC-No.	: 233-387-1

Holmium(III) chloride hexahydrate         Kin Irrit. 2; Eye Irrit. 2; STOT SE 3;         <= 100 %	Component	Classification	Concentration
	Holmium(III) chloride hexahydrate		
FC-No 233-387-1 H315 H319 H335	CAS-No. 14914-84-2	Skin Irrit. 2; Eye Irrit. 2; STOT SE 3;	<= 100 %
	EC-No. 233-387-1	H315, H319, H335	

15

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

### **SECTION 4: First aid measures**

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.
In case of skin contact
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with
water/ shower.
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
Hydrogen chloride gas
holmium 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.

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#### **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 For precautions see section 2.2. 7.2 Conditions for safe storage, including any incompatibilities Storage conditions Tightly closed. Dry. hygroscopic Storage class Storage class (TRGS 510): 11: Combustible Solids 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 Material: Nitrile rubber Minimum laver thickness: 0.11 mm Break through time: 480 min Material tested:KCL 741 Dermatril® L 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 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 P2 The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

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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 b) Color c) Odor d) Meltina point/freezing point 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 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

#### 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
Avoid moisture.
no information available
10.5 Incompatible materials
No data available
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.

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Crystals with lumps No data available No data available Melting point/range: 165 °C - dec.

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 No data available

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Chronic Effects on Humar Other Toxic Effects on Hu Special Remarks on Toxic to Animals: Not available. Special Remarks on Chro Special Remarks on other	imans: Hazardous in cas city nic Effects on Humans:		A, None. by NIOSH. It).		
SECTION 12: Ecological	information				
12.1 Toxicity No data available					
12.2 Persistence and deg	radability				
No data available					
12.3 Bioaccumulative pote No data available	ential				
12.4 Mobility in soil					
No data available			To Co		
12.5 Results of PBT and v			1		
		considered to be either persistent, nt and very bioaccumulative (vPvB) at			
levels of 0.1% or higher.	(I DI), OI Very persister	it and very bloaccumulative (vr vb) at			
12.6 Endocrine disrupting	properties				
Product: Assessment : The	substanco/mixturo doos	not contain components			
	dered to have endocrine				
	ding to REACH Article 5				
		17/2100 or Commission			
12.7 Other adverse effects	s	levels of 0.1% or higher.			
No data available					
SECTION 13: Disposal c 13.1 Waste treatment met			a a a a a a a a a a a a a a a a a a a		
No data available					
SECTION 14: Transport 14.1 UN number	Information				
ADR/RID: -		IMDG: -	IATA: -		
14.2 UN proper shipping r					
	dangerous goods dangerous goods				
	dangerous goods				
14.3 Transport hazard cla					
ADR/RID: - 14.4 Packaging group		IMDG: -	IATA: -		
ADR/RID: -		IMDG: -	IATA: -		
14.5 Environmental hazar	ds				
ADR/RID: no	for yoor	IMDG Marine pollutant: no	IATA: no		
14.6 Special precautions 1 No data available	or user				
Further information					
Not classified as dangerous in the meaning of transport regulations.					
SECTION 15: Regulatory	y information				
15.1 Safety, health and er	nvironmental regulations	/legislation specific for the			
substance or mixture	shoot complice with the	requirements of Regulation (EC) No.			
1907/2006.	meet complies with the l				

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

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Other regulations

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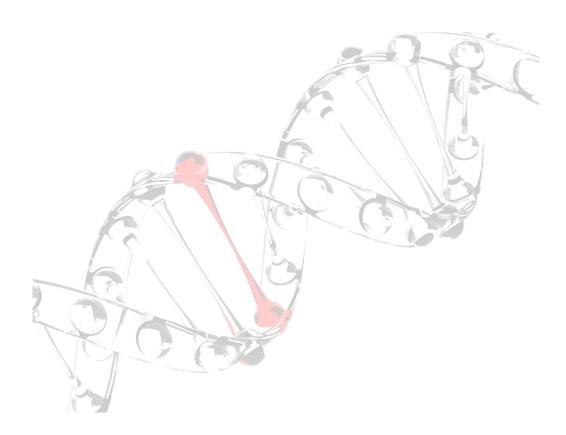
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#### **SECTION 16: Other Information**

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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