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### MATERIAL SAFETY DATA SHEET (MSDS)

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

Product name: Neodymium(III) nitrate, hexahydrate, 99.9% Product Code: N 2095 CAS No : 16454-60-7

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 Oxidizing solids, (Category 3) 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 H272 H315 H319 H335 Precautionary Statements P210 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

- H272: May intensify fire; oxidizer. H315: Causes skin irritation.
- H315: Causes skin irritation. H319: Causes serious eye irritation.
- H335: May cause respiratory irritation.

#### Warning

May intensify fire; oxidizer. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 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 nazards 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	: N3NdO9 · 6H2O
Molecular weight	: 438,35 g/mol
CAS-No.	: 16454-60-7
EC-No.	: 233-153-9

Component	Classification	Concentration
Neodymium trinitrate hexahydrate		
CAS-No. EC-No. 16454-60-7 233-153-9	Ox. Sol. 3; Skin Irrit. 2; Eye Irrit. 2; STOT	<= 100 %
	SE 3; H272, H315, H319, H335	

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. 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 Dry powder Dry sand Unsuitable extinguishing media Do NOT use water jet. For this substance/mixture no limitations of extinguishing agents are given. 5.2 Special hazards arising from the substance or mixture neodymium oxides Has a fire-promoting effect due to release of oxygen. 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 Advice on protection against fire and explosion Keep away from open flames, hot surfaces and sources of ignition. 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. Storage class Storage class (TRGS 510): 5.1B: Oxidizing hazardous materials 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 layer 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

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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. 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 violet c) Odor No data available d) Melting Melting point/range: 69 °C point/freezing point e) Initial boiling point No data available and boiling range f) Flammability (solid, No data available gas) g) Úpper/lower No data available flammability or explosive limits h) Flash point Not applicable i) Autoignition No data available temperature j) Decomposition No data available temperature k) pH No data available I) Viscosity Viscosity, kinematic: No data available Viscosity, dynamic: No data available m) Water solubility No data available n) Partition coefficient: No data available n-octanol/water o) Vapor pressure No data available p) Density No data available Relative density No data available q) Relative vapor No data available density r) Particle No data available characteristics s) Explosive properties No data available t) Oxidizing properties The substance or mixture is classified as oxidizing with the category 3. 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 no information available 10.5 Incompatible materials Strong reducing agents, Strong acids 10.6 Hazardous decomposition products In the event of fire: see section 5

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### **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.

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

12.1 Toxicity No data available		
No data avallable		
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 assessment		
This substance/mixture contains no components considered	to be either persistent,	
bioaccumulative and toxic (PBT), or very persistent and very	y bioaccumulative (vPvB) at	
levels of 0.1% or higher.		
12.6 Endocrine disrupting properties		
Product:		
Assessment : The substance/mixture does not conta	ain components	
considered to have endocrine disrupting		
according to REACH Article 57(f) or Co		
Delegated regulation (EU) 2017/2100 o Regulation (EU) 2018/605 at levels of 0		
12.7 Other adverse effects	. 1% of higher.	
No data available		
SECTION 13: Disposal considerations 13.1 Waste treatment methods	9	
Product 7		
	rn of chemicals and	
See www.retrologistik.com for processes regarding the retu		
See www.retrologistik.com for processes regarding the retu containers, or contact us there if you have further questions		
See www.retrologistik.com for processes regarding the retu containers, or contact us there if you have further questions SECTION 14: Transport information		
See www.retrologistik.com for processes regarding the retu containers, or contact us there if you have further questions SECTION 14: Transport information 14.1 UN number		IATA: 1465
See www.retrologistik.com for processes regarding the retu containers, or contact us there if you have further questions SECTION 14: Transport information 14.1 UN number ADR/RID: 1465		IATA: 1465
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See www.retrologistik.com for processes regarding the retu containers, or contact us there if you have further questions SECTION 14: Transport information 14.1 UN number ADR/RID: 1465 14.2 UN proper shipping name ADR/RID : DIDYMIUM NITRATE		IATA: 1465
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See www.retrologistik.com for processes regarding the retu containers, or contact us there if you have further questions SECTION 14: Transport information 14.1 UN number ADR/RID: 1465 14.2 UN proper shipping name ADR/RID : DIDYMIUM NITRATE IMDG : DIDYMIUM NITRATE IMDG : DIDYMIUM NITRATE IATA : Didymium nitrate 14.3 Transport hazard class(es) ADR/RID: 5.1 14.4 Packaging group ADR/RID: III	IMDG: 1465	
See www.retrologistik.com for processes regarding the retu containers, or contact us there if you have further questions SECTION 14: Transport information 14.1 UN number ADR/RID: 1465 14.2 UN proper shipping name ADR/RID : DIDYMIUM NITRATE IMDG : DIDYMIUM NITRATE IMDG : DIDYMIUM NITRATE IATA : Didymium nitrate 14.3 Transport hazard class(es) ADR/RID: 5.1 14.4 Packaging group ADR/RID: III 14.5 Environmental hazards	IMDG: 1465 IMDG: 5.1 IMDG: III	IATA: 5.1 IATA: III
See www.retrologistik.com for processes regarding the retu containers, or contact us there if you have further questions SECTION 14: Transport information 14.1 UN number ADR/RID: 1465 14.2 UN proper shipping name ADR/RID : DIDYMIUM NITRATE IMDG : DIDYMIUM NITRATE IMDG : DIDYMIUM NITRATE IATA : Didymium nitrate 14.3 Transport hazard class(es) ADR/RID: 5.1 14.4 Packaging group ADR/RID: III 14.5 Environmental hazards ADR/RID: no	IMDG: 5.1	IATA: 5.1
See www.retrologistik.com for processes regarding the retu containers, or contact us there if you have further questions SECTION 14: Transport information 14.1 UN number ADR/RID: 1465 14.2 UN proper shipping name ADR/RID : DIDYMIUM NITRATE IMDG : DIDYMIUM NITRATE IMDG : DIDYMIUM NITRATE IATA : Didymium nitrate 14.3 Transport hazard class(es) ADR/RID: 5.1 14.4 Packaging group ADR/RID: III 14.5 Environmental hazards ADR/RID: no 14.6 Special precautions for user	IMDG: 1465 IMDG: 5.1 IMDG: III	IATA: 5.1 IATA: III
See www.retrologistik.com for processes regarding the retu containers, or contact us there if you have further questions SECTION 14: Transport information 14.1 UN number ADR/RID: 1465 14.2 UN proper shipping name ADR/RID : DIDYMIUM NITRATE IMDG : DIDYMIUM NITRATE IMDG : DIDYMIUM NITRATE IATA : Didymium nitrate 14.3 Transport hazard class(es) ADR/RID: 5.1 14.4 Packaging group ADR/RID: III 14.5 Environmental hazards ADR/RID: no	IMDG: 1465 IMDG: 5.1 IMDG: III	IATA: 5.1 IATA: III

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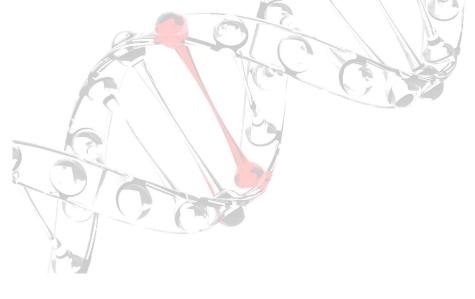
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#### **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
National legislation
Seveso III: Directive 2012/18/EU of the
European Parliament and of the Council
on the control of major-accident hazards
involving dangerous substances.
P8 OXIDISING LIQUIDS AND
SOLIDS
Other regulations
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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