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MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Product identifiers

Product Name : Bleaching powder Product Code : B 1930 CAS No: 7778-54-3

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 Oxidizing solids, (Category 2) H272: May intensify fire; oxidizer. H302: Harmful if swallowed. Acute toxicity, (Category 4) Skin corrosion, (Sub-category 1B) H314: Causes severe skin burns and eye damage Serious eye damage, (Category H318: Causes serious eye damage. 1) 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 Danger Hazard Statements May intensify fire; oxidizer. H272 H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H400 Very toxic to aquatic life. Precautionary Statements P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 Do not breathe dust. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with water for several minutes. P305 + P351 + P338 Remove contact lenses, if present and easy to do. Continue rinsing. Supplemental Hazard information (EU) EUH031 Contact with acids liberates toxic gas. Reduced Labeling (<= 125 ml) Pictogram Signal Word Danger Hazard Statements H314 Causes severe skin burns and eye damage. **Precautionary Statements** P260

Do not breathe dust.

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P280

Wear protective gloves/ protective clothing/ eye protection/ face protection. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with water for several minutes. P305 + P351 + P338 Remove contact lenses, if present and easy to do. Continue rinsina. Supplemental Hazard information (EU) EUH031 Contact with acids liberates toxic gas. 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	-
Formula	: Ca(OCI)2
Molecular weight	: 142,98 g/mol
CAS-No.	: 7778-54-3
EC-No.	: 231-908-7

Component	1117	Classification	Concentration
calcium hypochlorite			A BAR
CAS-No. EC-No.	7778-54-3 231-908-7	Ox. Sol. 2; Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; Aquatic Acute 1; H272, H302, H314, H318, H400 Concentration limits: >= 5 %: Skin Corr. 1B, H314; 1 - < 5 %: Skin Irrit. 2, H315; 3 - < 5 %: Eye Dam. 1, H318; 0,5 - < 3 %: Eye Irrit. 2, H319; M-Factor - Aquatic Acute: 10	<= 100 %

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. Call in physician. In case of skin contact In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately. In case of eye contact After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses. If swallowed After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise. 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

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No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media Sand Cement 5.2 Special hazards arising from the substance or mixture Hydrogen chloride gas Calcium oxide Not combustible. Has a fire-promoting effect due to release of oxygen. 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 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. Separately or together with other oxidising substances only and away from

sources of ignition and heat.Because of their oxidation potential these products can raise the burning rate of combustible substances substantially or ignite combustible substances on contact with them. Do not store near acids. Storage class

Storage class (TRGS 510): 5.1A: Strongly 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
Eye/face protection
Use equipment for eye protection tested and approved under appropriate

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government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles 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 clothing Respiratory protection Recommended Filter type: Filter B-(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 white c) Odor chlorine-like d) Melting Melting point/range: 100 °C - lit. point/freezing point e) Initial boiling point No data available and boiling range f) Flammability (solid, The product is not flammable. gas) g) Upper/lower No data available flammability or explosive limits h) Flash point No data available i) Autoignition 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: Not applicable for inorganic substances n-octanol/water o) Vapor pressure No data available p) Density 2,35 g/cm3 at 25 °C - lit. Relative density No data available

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q) Relative vapor density	No data available
r) Particle	No data available
characteristics s) Explosive properties	No data available
t) Oxidizing properties The substance or mixture is	
category 2.	
9.2 Other safety information No data available	
NO data avallable	
SECTION 10: Stability and reactivity	
10.1 Reactivity	
Contact with acids liberates toxic gas. 10.2 Chemical stability	
The product is chemically stable under standard a	mbient conditions (room temperature).
10.3 Possibility of hazardous reactions	
A risk of explosion and/or of toxic gas formation ex	xists with the following substances:
Water acids	
Risk of explosion with:	
alkaline earth compounds	
Acetylene	
Alkali metals Amines	
Ammonia	
Nitromethane	
ferric oxide	
ethanol	
glycerol Methanol	
carbon/soot	Mark I B Darka
urea	
sulfur	
Organic Substances tetranitromethane	
turpentine oils and/or turpentine substitutes	
acetic acid	
with pataonide	
potassium cyanide ammonium chloride	
Cobalt compounds	
dichloromethylamine	
magnesium compounds	
Nickel compounds Violent reactions possible with:	
phenol	
Alcohols	
ammonium compounds	
Halogenated hydrocarbon metallic oxides	
organic nitro compounds	
Reducing agents	
Risk of ignition or formation of inflammable gases combustible substances	or vapours with:
fats	
oils	
mercaptans	20.
Generates dangerous gases or fumes in contact v Acids	vitn:
10.4 Conditions to avoid	
no information available	

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10.5 Incompatible materialsNo data available10.6 Hazardous decomposition productsIn 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.

SECTION 12: Ecological information

12.1 Toxicity Toxicity to fish LC50 - Lepomis macrochirus (Bluegill sunfish) - 0,049 - 0,16 mg/l -96 h Remarks: (IUCLID) Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 0,067 mg/l - 48 h Remarks: (ECOTOX Database) Toxicity to algae IC50 - algae - 2 mg/l - 72 h Remarks: (Lit.) 12.2 Persistence and degradability The methods for determining the biological degradability are not applicable to inorganic substances. 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 bioaccumulative (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 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. 12.7 Other adverse effects

Harmful effect due to pH shift.

Forms corrosive mixtures with water even if diluted. Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste treatment methods Product See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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SECTION 14: Transport information

14.1 UN number	onnation					
ADR/RID: 1748	,	IMDG: 1748	IATA: 1748			
		IIVIDG. 1740	IATA. 1740			
14.2 UN proper shipping nam ADR/RID:		HYPOCHLORITE, DRY				
IMDG:		HYPOCHLORITE, DRY				
IMDG. IATA:		HYPOCHLORITE, DRY				
		HTFOCHLORITE, DRT				
14.3 Transport hazard class(ADR/RID: 5.1		IMDG: 5.1	IATA: 5.1			
	, i	IMDG. 5.1	IATA. 5.1			
14.4 Packaging group	ſ					
ADR/RID: II	I	IMDG: II	IATA: II			
14.5 Environmental hazards						
ADR/RID: yes		IMDG Marine pollutant: yes	IATA: no			
14.6 Special precautions for u	user					
Tunnel restriction code : (E)						
Further information : No data	available					
SECTION 15: Regulatory in						
	onmental reg	gulations/legislation specific for	or the			
substance or mixture						
This material safety data she	et complies	with the requirements of Regu	ulation (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						
E1 ENVIRONMENTAL HAZARDS						
P8 OXIDISING LIQUIDS AND						
SOLIDS						
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	ation					

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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