## **OTTO CHEMIE PVT LTD**

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## MATERIAL SAFETY DATA SHEET

1.Identification 1.1GHS Product identifier n-Cetyl n,n,n,tri methyl ammonium bromide, GR 99%+ Code C 1887

Danger

2.Hazard identification 2.1Classification of the substance or mixture Acute toxicity - Oral, Category 4 Skin irritation, Category 2 Serious eye damage, Category 1 Specific target organ toxicity \u2013 single exposure, Category 3 Specific target organ toxicity \u2013 repeated exposure, Category 2 Hazardous to the aquatic environment, short-term (Acute) - Category Acute 1 2.2GHS label elements, including precautionary statements Pictogram(s)

Signal word Hazard statement(s)

Prevention

Response

H302 Harmful if swallowed H315 Causes skin irritation H318 Causes serious eye damage H335 May cause respiratory irritation H373 May cause damage to organs through prolonged or repeated exposure H400 Very toxic to aquatic life Precautionary statement(s) P264 Wash ... thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/protective clothing/eye protection/face protection. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P271 Use only outdoors or in a well-ventilated area. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P273 Avoid release to the environment. P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/\u2026if you feel unwell. P330 Rinse mouth. P302+P352 IF ON SKIN: Wash with plenty of water/... P321 Specific treatment (see ... on this label). P332+P313 If skin irritation occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/doctor/u2026 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

	P312 Call a POISON CENTER/doctor/\u2026if you feel unwell.
	P314 Get medical advice/attention if you feel unwell.
	P391 Collect spillage.
Storage	P403+P233 Store in a well-ventilated place. Keep container tightly
	closed.
	P405 Store locked up.
Disposal	P501 Dispose of contents/container to
2.3Other hazards which d	o not result in classification
none	

3. Composition/information on ingredients

3.1Substances
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Chemical name	Common names and synonyms	CAS number	EC number	Concentration
nexadecylunmetrylammonium	Hexadecyltrimethylammonium bromide	57-09-0	none	100%

4.First-aid measures

4.1Description of necessary first-aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. 4.2Most important symptoms/effects, acute and delayed

no data available

4.3Indication of immediate medical attention and special treatment needed, if necessary no data available

5.Fire-fighting measures

5.1Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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5.2Specific hazards arising from the chemical

no data available

5.3Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6.Accidental release measures

6.1Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. 6.3Methods and materials for containment and cleaning up

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7.Handling and storage

7.1Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2. 7.2Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

8.Exposure controls/personal protection 8.1Control parameters Occupational Exposure limit values no data available **Biological limit values** no data available 8.2Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. 8.3Individual protection measures, such as personal protective equipment (PPE) Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique(without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Respiratory protection

Wear dust mask when handling large quantities.

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Thermal hazards no data available

9. Physical and chemical properties

Physical state Colour Odour	white powder no data available no data available	
Melting point/ freezing point Boiling point or initial boiling point and boiling range	243\u00b0C(lit.)	
Flammability Lower and upper explosion limit / flammability limit	no data available no data available	2-0.07
Flash point	244\u00b0C	
Auto-ignition temperature	no data available	
Decomposition temperature		
pH	no data available	
Kinematic viscosity	no data available	) (u00haC)
Solubility Partition coefficient n-	In water:13 g/L (20 no data available	(uoubac)
octanol/water (log value)	no data avaliable	
Vapour pressure	no data available	
Density and/or relative	no data available	
density	111 Salar	
Relative vapour density	no data available	
Particle characteristics	no data available	
10.Stability and reactivity 10.1Reactivity	$\sim$	
no data available		
10.2Chemical stability		
Stable under recommended		
10.3Possibility of hazardous	reactions	
no data available 10.4Conditions to avoid		
no data available		
10.5Incompatible materials		
no data available		
10.6Hazardous decompositi	ion products	
no data available	4	
14 Tauisalaaisaliafamaatian		
11.Toxicological information Acute toxicity		
Oral: no data available		
Inhalation: no data available	•	
Dermal: no data available		
Skin corrosion/irritation		
no data available		
Serious eye damage/irritatio	n	
no data available Respiratory or skin sensitiza	tion	
no data available		
Germ cell mutagenicity		
no data available		
Carcinogenicity		
no data available		
Reproductive toxicity		
no data available		
STOT-single exposure no data available		
no uala avaliable		

STOT-repeated exposure no data available Aspiration hazard no data available

12.Ecological information 12.1Toxicity Toxicity to fish: no data available Toxicity to daphnia and other aquatic invertebrates: no data available Toxicity to algae: no data available Toxicity to microorganisms: no data available 12.2Persistence and degradability no data available 12.3Bioaccumulative potential no data available 12.4Mobility in soil no data available 12.5Other adverse effects no data available

13.Disposal considerations 13.1Disposal methods Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems. Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14.Transport information		1		
14.1UN Number			1 1	L'A
ADR/RID: UN3077	IMDG: UN3077	ATA: UN3077	A 1/2	
14.2UN Proper Shipping Name		1 - 1		
ADR/RID: ENVIRONMENTALLY H			1 10 11	
IMDG: ENVIRONMENTALLY HAZA			NY W	A start
IATA: ENVIRONMENTALLY HAZA	RDOUS SUBSTANCE, SOLID, I	N.O.S.		
14.3Transport hazard class(es)				
ADR/RID: 9	IMDG: 9	IATA: 9		
14.4Packing group, if applicable				
ADR/RID: III	IMDG: III	IATA: III		
14.5Environmental hazards				
ADR/RID: yes	IMDG: yes	IATA: yes		
14.6Special precautions for user				
no data available	Annov II of MADDOL 72/79 and t			
14.7Transport in bulk according to a no data available	Annex II of MARPOL 73/78 and t			
15.Regulatory information				
15.1Safety, health and environment	tal regulations specific for the pro	duct in quest	ion	
		CAS		
Chemical name	Common names and synonyms	number	EC number	
Hexadecyltrimethylammonium	Hexadecyltrimethylammonium	57-09-0	none	
bromide	bromide		Listad	
European Inventory of Existing Con	Listed.			
EC Inventory	Listed.			
United States Toxic Substances Co	Listed.			
China Catalog of Hazardous chemi	Not Listed.			
New Zealand Inventory of Chemica	Listed. Listed.			
Philippines Inventory of Chemicals and Chemical Substances (PICCS)				
Vietnam National Chemical Inventory				
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)				

## 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.

