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MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1. Product identifiers

Product name: Dihexylamine, 98%+ Product Code: D 8122 CAS No: 143-16-8

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 Acute toxicity, (Category 2) H300: Fatal if swallowed. Acute toxicity, (Category 2) H330: Fatal if inhaled. Acute toxicity, (Category 1) H310: Fatal in contact with skin. Skin corrosion, (Sub-category H314: Causes severe skin burns and eye 1A) damage. Serious eve damage, (Category H318: Causes serious eye damage. 1) Short-term (acute) aquatic H400: Very toxic to aquatic life. hazard, (Category 1) H410: Very toxic to aquatic life with long Long-term (chronic) aquatic hazard, (Category 1) lasting effects. 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Danger Hazard Statements H300 + H310 + H330 Fatal if swallowed, in contact with skin or if inhaled. Causes severe skin burns and eye damage. H314 Very toxic to aquatic life with long lasting effects. H410 Precautionary Statements Do not breathe mist or vapors. P260 P273 Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/ face P280 protection. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P304 + P340 + P310 IF INHÄLED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Supplemental Hazard none Statements Reduced Labeling (<= 125 ml) Pictogram Signal Word Danger Hazard Statements H314 Causes severe skin burns and eye damage.

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H300 + H310 + H33		Fatal if swallowed, in contact with skin or if inhaled.					
Precautionary State	ments						
P260		Do not breathe mist or vapors.					
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.					
P304 + P340 + P310		IF INHALED: Remove person to fresh air and keep comfortable					
		for breathing. Immediately call a POISON CENTER/ doctor.					
P305 + P351 + P338		IF IN EYES: Rinse cautiously with water for several minutes.					
		Remove contact lenses, if present and easy to do. Continue					
		rinsing.					
Supplemental Haza	rd	none					
Statements							
2.3 Other hazards							
This substance/mixt	ure contains no components of	considered to be either persistent,					
bioaccumulative and	d toxic (PBT), or very persiste	nt and very bioaccumulative (vPvB) at					
levels of 0.1% or high	iher.						
Ecological information	on:						
		ents considered to have endocrine					
		57(f) or Commission Delegated regulation					
(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.							
Toxicological inform		5					
		ents considered to have endocrine					
		57(f) or Commission Delegated regulation					
(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.							
()							
SECTION 3: Comp	osition/information on ingre	dients					
3.1 Substances							
Formula	: C12H27N						
	: 185,35 g/mol	Mark Broken					
CAS-No.	: 143-16-8						
EC-No.	205-588-4						

Component	Classification	Concentration
Dihexylamin		
CAS-No. 143-16-8 EC-No. 205-588-4	Acute Tox. 2; Acute Tox. 1; Skin Corr. 1A; Eye Dam. 1; Aquatic Acute 1; Aquatic Chronic 1; H300, H330, H310, H314, H318, H400, H410 M-Factor - Aquatic Acute: 1	<= 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. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

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

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting

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(only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. 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 No data available **SECTION 5: Firefighting measures** 5.1 Extinguishing media Suitable extinguishing media Carbon dioxide (CO2) Foam Dry powder Unsuitable extinguishing media For this substance/mixture no limitations of extinguishing agents are given. 5.2 Special hazards arising from the substance or mixture Carbon oxides Nitrogen oxides (NOx) Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire. 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: Do not breathe vapors, aerosols. 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 carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area. 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. Avoid generation of vapours/aerosols. 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. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Storage class Storage class (TRGS 510): 6.1A: Combustible, acute toxic Cat. 1 and 2 / very toxic 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). 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: 0,4 mm Break through time: 480 min Material tested:Camatril® (KCL 730 / Aldrich Z677442, Size M) 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: butyl-rubber Minimum layer thickness: 0,7 mm Break through time: 30 min Material tested:Butoject® (KCL 898) Body Protection protective clothing Respiratory protection required when vapours/aerosols 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 ABEK 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 clear, liquid b) Color light yellow c) Odor No data available d) Melting No data available point/freezing point e) Initial boiling point 192 - 195 °C - lit. and boiling range f) Flammability (solid, No data available gas) g) Úpper/lower Upper explosion limit: 5.9 %(V) flammability or Lower explosion limit: 0,7 %(V) explosive limits h) Flash point 95 °C - closed cup i) Autoignition No data available temperature

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i) 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 *c*haracteristics s) Explosive properties t) Oxidizing properties 9.2 Other safety information 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 0.795 g/cm3 at 25 °C - lit. No data available No data available

No data available

No data available none

SECTION 10: Stability and reactivity 10.1 Reactivity Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical. 10.2 Chemical stability The product is chemically stable under standard ambient conditions (room temperature) . 10.3 Possibility of hazardous reactions Exothermic reaction with: Strong oxidizing agents acids Caution! In contact with nitrites, nitrates, nitrous acid possible liberation of nitrosamines! 10.4 Conditions to avoid Strong heating. 10.5 Incompatible materials Strong 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. Eve 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.

SECTION 12: Ecological information

12.1 Toxicity Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 0,78 mg/l - 96 h Remarks: (Hommel) Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 0,97 mg/l - 48 h Remarks: (ECOTOX Database) 12.2 Persistence and degradability Biodegradability Result: 90 - 100 % - Readily biodegradable.

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This substance/mixt	ve potential and vPvB assessment ture contains no components c d toxic (PBT), or very persisten gher.	onsidered to be either persistent, It and very bioaccumulative (vPvB) at					
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 Discharge into the environment must be avoided.							
13.1 Waste treatme Product See www.retrologist	osal considerations nt methods tik.com for processes regarding ct us there if you have further o						
SECTION 14: Trans 14.1 UN number	sport information	Sector Sector					
ADR/RID: 2922		IMDG: 2922	IATA: 2922				
14.2 UN proper ship							
ADR/RID	: CORROSIVE LIQUID, TOXI						
IMDG	: CORROSIVE LIQUID, TOXI		2.50				
	: Corrosive liquid, toxic, n.o.s.	(Dihexylamin)					
14.3 Transport haza	ard class(es)						
ADR/RID: 8 (6.1) 14.4 Packaging grou		IMDG: 8 (6.1)	IATA: 8 (6.1)				
ADR/RID: II	ab C	IMDG: II	IATA: II				
14.5 Environmental	hazards						
ADR/RID: yes		IMDG Marine pollutant: yes	IATA: no				
14.6 Special precau	itions for user						
Tunnel restriction co							
Further information	: No data available						
SECTION 45. Dog							
SECTION 15: Regul 15.1 Safety, health a substance or mixtur	and environmental regulations/	legislation specific for the					
This material safety 1907/2006.	data sheet complies with the r	equirements of Regulation (EC) No.					
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							
H1 ACUTE TOXIC							
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 Safe		пу реоріе аї могк.					
	hemical safety assessment was	s not carried out					
To the product a chemical safety assessment was not earned but							

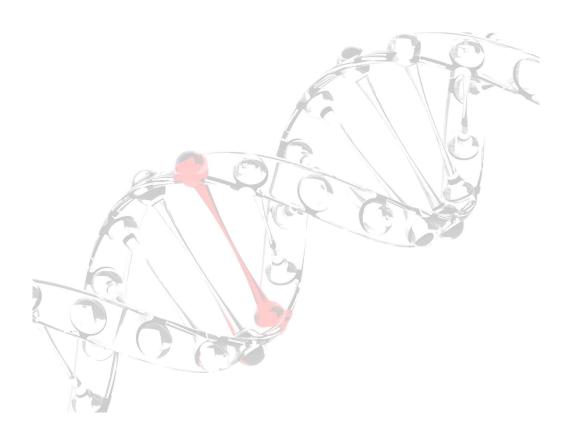
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Section 16: Other Information

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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