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MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1. Product identifiers

Product name: Dipropylamine, 99% Product Code: D 2350 CAS No : 142-84-7

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 info@ottokemi.com

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 Flammable liquids, (Category 2) H225: Highly flammable liquid and vapor. Acute toxicity, (Category 4) H302: Harmful if swallowed. Acute toxicity, (Category 3) H331: Toxic if inhaled. Acute toxicity, (Category 3) H311: Toxic in contact with skin. Skin corrosion, (Sub-category H314: Causes severe skin burns and eye damage. 1A) Serious eye damage, (Category H318: Causes serious eye damage 1) Specific target organ toxicity -H335: May cause respiratory irritation. single exposure, (Category 3), Respiratory system 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Danger Hazard Statements H225 Highly flammable liquid and vapor. Harmful if swallowed. H302 Toxic in contact with skin or if inhaled. H311 + H331 H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation. Precautionary Statements Keep away from heat, hot surfaces, sparks, open flames and P210 other ignition sources. No smoking. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell 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 Hazard none Statements Reduced Labeling (<= 125 ml)

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Pictogram Signal Word Danger Hazard Statements Causes severe skin burns and eye damage. H314 H311 + H331 Toxic in contact with skin or if inhaled. **Precautionary Statements** P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. IF ON SKIN (or hair): Take off immediately all contaminated P303 + P361 + P353 clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable P304 + P340 + P310 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 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. Lachrymator. **SECTION 3: Composition/information on ingredients** 3.1 Substances Formula C6H15N Molecular weight : 101,19 g/mol CAS-No. : 142-84-7 EC-No. 205-565-9

Component	Classification	Concentration
dipropylamine		
CAS-No. 142-84-7 EC-No. 205-565-9	Flam. Liq. 2; Acute Tox. 4; Acute Tox. 3; Skin Corr. 1A; Eye Dam. 1; STOT SE 3; , H225, H302, H331, H311, H314, H318, H335 Concentration limits: >= 1 %: STOT SE 3, H335;	<= 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.

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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 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. Pav attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures. 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 Remove container from danger zone and cool with water. 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. Keep away from heat and sources of ignition. 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. Risk of explosion. 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. Advice on protection against fire and explosion Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. 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

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and

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sources of ignition. Keep locked up or in an area accessible only to gualified or authorized persons. Storage class Storage class (TRGS 510): 3: Flammable liquids 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 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: Viton® Minimum laver thickness: 0.7 mm Break through time: 480 min Material tested: Vitoject® (KCL 890 / Aldrich Z677698, 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 laver thickness: 0,7 mm Break through time: 30 min Material tested:Butoject® (KCL 898) Body Protection Flame retardant antistatic protective clothing. Respiratory protection Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds 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. Risk of explosion. **SECTION 9: Physical and chemical properties** 9.1 Information on basic physical and chemical properties a) Physical state liquid b) Color colorless c) Odor Ammonia odor d) Melting Melting point/range: -63 °C point/freezing point e) Initial boiling point 105 - 110 °C - lit. and boiling range f) Flammability (solid, No data available gas) g) Upper/lower Upper explosion limit: 9,3 %(V)

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flammability or explosive limits h) Flash point i) Autoignition 260 °C temperature j) Decomposition temperature k) pH I) Viscosity m) Water solubility n) Partition coefficient: n-octanol/water (ECHA) o) Vapor pressure p) Density Relative density q) Relative vapor density r) Particle characteristics s) Explosive properties t) Oxidizing properties none 9.2 Other safety information Dissociation constant 11 Relative vapor density **SECTION 10: Stability and reactivity** 10.1 Reactivity Vapors may form explosive mixture with air. 10.2 Chemical stability The product is chemically stable under standard ambient conditions (room temperature) 10.3 Possibility of hazardous reactions Caution! In contact with nitrites, nitrates, nitrous acid possible liberation of nitrosamines! Exothermic reaction with: Nitriles Acid anhydrides acids nitrous acid Copper Copper alloys Light metals 10.4 Conditions to avoid Warming. 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. 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.

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Lower explosion limit: 1,8 %(V)

7 °C - closed cup at 1.013 hPa No data available

No data available Viscosity, kinematic: No data available Viscosity, dynamic: 0.517 mPa.s at 25 °C No data available log Pow: 1,33 at 23 °C - Bioaccumulation is not expected.,

26,8 hPa at 25 °C 0,738 g/cm3 at 25 °C - lit. 0,74 at 20 °C 0,74 at 20 °C

No data available

No data available

0,74 at 20 °C

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SECTION 12: Ecological information

SECTION 12: Ecologi	cal information		
12.1 Toxicity			
	atic test LC50 - Oryzias latipes	s - 27 mg/l - 96 h	
(OECD Test Guideline	203)		
Toxicity to daphnia			
and other aquatic			
invertebrates			
	nia magna (Water flea) - > 20	0 mg/l - 48 h	
(OECD Test Guideline			
Toxicity to algae static	test ErC50 - Pseudokirchnerie	ella subcapitata - > 100 mg/l - 72	
(OECD Test Guideline Toxicity to bacteria stat (OECD Test Guideline Toxicity to daphnia and other aquatic invertebrates(Chronic	ic test EC50 - activated sludg	e - > 1.000 mg/l - 30 min	
toxicity)			
	a (Water flea) - 4,2 mg/l - 21 (
(OECD Test Guideline			
	a (Water flea) - 5,7 mg/l - 21 d		
(OECD Test Guideline			
12.2 Persistence and d	legradability		
Biodegradability aerobi			
Result: 97,6 % - Readil	y biodegradable.		
(OECD Test Guideline	301F)		
Ratio BOD/ThBOD > 9			
12.3 Bioaccumulative p	ootential		
No data available			
12.4 Mobility in soil			
No data available			19
12.5 Results of PBT an			
		sidered to be either persistent,	
		ind very bioaccumulative (vPvB) at	
levels of 0.1% or highe			
12.6 Endocrine disrupti Product:	ing properties		
100	he substance/mixture does no	at contain components	
	nsidered to have endocrine di		
	cording to REACH Article 57(1		
	legated regulation (EU) 2017/		
	gulation (EU) 2018/605 at lev		
12.7 Other adverse effe		C C	
No data available 🛝			
K			
SECTION 13: Disposa			
13.1 Waste treatment r	nethods		
Product	,		
	com for processes regarding t		
containers, or contact t	us there if you have further qu	estions.	
SECTION 14: Transpo	ort information		
14.1 UN number			
ADR/RID: 2383	IN	1DG: 2383	IATA: 2383
14.2 UN proper shippin			
	IPROPYLAMINE		
	IPROPYLAMINE		
	ipropylamine		
14.3 Transport hazard	1 1 2		
ADR/RID: 3 (8)		1DG: 3 (8)	IATA: 3 (8)
14.4 Packaging group			

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ADR/RID: II	IMDG: II	IATA: II			
14.5 Environmental hazards					
ADR/RID: no	IMDG Marine pollutant: no	IATA: no			
14.6 Special precautions for user					
Tunnel restriction code : (D/E)					
Further information : No data available					
SECTION 15: Regulatory information					
15.1 Safety, health and environmental regulation	s/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.					
P5c FLAMMABLE LIQUIDS					
Other regulations	station in appardance to Dir 02/85/EEC				
Observe work restrictions regarding maternity pro stricter national regulations where applicable.	Diection in accordance to Dil 92/65/EEC				
Take note of Dir 94/33/EC on the protection of yo	ound people at work				
15.2 Chemical Safety Assessment	builg people at work.				
For this product a chemical safety assessment w	as not carried out				
· · · · · · · · · · · · · · · · · · ·					
Section 16: Other Information					
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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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