An ISO 9001 : 2015 & GMP Certified Company 101, Aarkay Ruby Industrial Estate (1B), Opp Shree Narayan Industrial Estate, Chinchpada, Vasai East, Waliv, Maharashtra 401208. Tel : + 91 98200 41841 Email : <u>info@ottokemi.com</u> Web : <u>www.ottokemi.com</u>

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Product identifiers

Product Name : Cyclopentanol, 98%+ Product Code: C 2810a CAS-No.: 96-41-3

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
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

 Classification according to Regulation (EC) No 1272/2008

 Flammable liquids (Category 3), H226

 For the full text of the H-Statements mentioned in this Section, see Section 16.

 2.2 Label elements

 Labelling according Regulation (EC) No 1272/2008

 Pictogram

 Signal Word
 Warning

 Hazard statement(s)

 H226
 Flammable liquid and vapor.

 Precautionary statement(s)

 P210
 Keep away from heat, hot surfaces, sparks, open flames and

other ignition sources. No smoking. In case of fire: Use dry powder or dry sand to extinguish.

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.

SECTION 3: Composition/information on ingredients

3.1 Substances Formula : C5H10O Molecular weight : 86,13 g/mol CAS-No. : 96-41-3 EC-No. : 202-504-8 No components need to be disclosed according to the applicable regulations. 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 measuresGeneral adviceShow this material safety data sheet to the doctor in attendance.If inhaledAfter inhalation: fresh air.In case of skin contact

DISCLAIMER

P370 + P378

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After eve contact: rinse out with plenty of water. Remove contact lenses. If swallowed After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell 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 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 Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air at elevated temperatures. 5.3 Advice for firefighters In the event of fire, wear self-contained breathing apparatus. 5.4 Further information Remove container from danger zone and cool with water. 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. 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 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 protection against fire and explosion Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with

Hygiene measures

water/ shower. In case of eye contact

Change contaminated clothing. Wash hands 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 sources of ignition.

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

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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 Eye/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 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 Regulation (EU) 2016/425 and the standard EN 374 derived from it. Full contact Material: Nitrile rubber Minimum layer thickness: 0,4 mm Break through time: 480 min Splash contact Material: Nitrile rubber Minimum layer thickness: 0,4 mm Break through time: 480 min If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario. **Body Protection** Flame retardant antistatic protective clothing. Respiratory protection required when vapours/aerosols are generated. 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. Risk of explosion.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties				
a) Physical state	clear, liquid			
b) Color	colorless			
c) Odor	No data available			
d) Melting	Melting point/range: -19 °C			
point/freezing point				
e) Initial boiling point	139 - 140 °C at 1013 hPa			
and boiling range				
f) Flammability (solid,	No data available			
gas)				
g) Upper/lower	No data available			
flammability or				
explosive limits				
h) Flash point	51 °C - closed cup			
i) Autoignition	No data available			
temperature				
j) Decomposition	No data available			
temperature				
k) pH	No data available			
I) Viscosity	Viscosity, kinematic: No data available			

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m) Water solubility n) Partition coefficient: n-octanol/water o) Vapor pressure p) Density Relative density q) Relative vapour density r) Particle characteristics s) Explosive properties t) Oxidizing properties 9.2 Other safety information No data available

Viscosity, dynamic: No data available No data available No data available

No data available 0,948 g/cm3 No data available No data available

No data available

No data available No data available

SECTION 10: Stability and reactivity

10.1 Reactivity Vapor/air-mixtures are explosive at intense warming. 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 Heating. 10.5 Incompatible materials Strong oxidizing agents, Acid chlorides, Acid anhydrides 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.

SECTION 12: Ecological information

12.1 Toxicity Toxicity to fish LC0 - Leuciscus idus melanotus - 1.425 mg/l - 48 h LC50 - Leuciscus idus melanotus - 1.490 mg/l - 48 h Toxicity to daphnia and other aquatic invertebrates LC50 - Daphnia magna (Water flea) - 1.100 mg/l - 24 h 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 bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

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No data available 12.7 Other adverse effects No data available

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.

SECTION 14: Transport information

14.1 UN number				
ADR/RID: 2244		IMDG: 2244	IATA: 2244	
14.2 UN proper ship				
ADR/RID:	CYCLOPENTANOL			
IMDG:	CYCLOPENTANOL	20		
IATA:	Cyclopentanol			
14.3 Transport haza	ard class(es)			
ADR/RID: 3		IMDG: 3	IATA: 3	
14.4 Packaging grou	up			
ADR/RID: III		IMDG: III	IATA: III	
14.5 Environmental	hazards			
ADR/RID: no		IMDG Marine pollutant: no	IATA: no	
14.6 Special precau	itions for user			
No data available				
SECTION 15: Regu				
15.1 Safety, health and environmental regulations/legislation specific for the				
substance or mixtur				
	data sheet complies with the r	equirements of Regulation (EC) No.		
1907/2006.			10	
National legislation				
Seveso III: Directive 2012/18/EU of the European				
	ne Council on the control of	1 Cm		
	ards involving dangerous			
substances.				
: FLAMMABLE LIQU	JIDS			
Other regulations				
	33/EC on the protection of you	ing people at work.		
15.2 Chemical Safe				
For this product a cl	hemical safety assessment wa	s not carried out		
Section 16: Othe	er 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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