



# **SAFETY DATA SHEET**

## **1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING**

Catalogue No. : Z 10517  
Product Name : ZIRCONIUM OXY CHLORIDE

Manufacturer / supplier identification  
Company : **Nice Chemicals (P) Ltd.**, PB No: 2217, Manimala Road,  
Edappally, Kochi - 682 024, Kerala, India

Contact For Information : Tel . No. – 0484 2802536 Fax : 0484 2802483  
Emergency Telephone No. : 0484 2801583 Tele fax No. : 0484 2802483

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## **2. COMPOSITION/INFORMATION ON INGREDIENTS**

Synonyms : Zirconium tetrachloride

CAS-No : 10026-11-6  
EC Index No. : 007-096-00-9  
Molar mass : 233.03  
Molecular Formula :  $\text{Cl}_4 \text{Zr}$   
EC -No. : 233-058-2

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## **3. HAZARDS IDENTIFICATION**

React violently with water. Harmful if swallowed. Causes burns.

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## **4. FIRST AID MEASURES**

After skin contact : Wash off with plenty of water , Dab with polyethylene glycol 400. Immediately remove contaminated clothing.

After eye contact : Rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately summon eye specialist.

After inhalation : fresh air, Summon doctor.

After swallowing : Make victim drink plenty of water (if necessary several litres), avoid vomiting (risk of perforation !). Immediately summon doctor. Do not attempt to neutralize.

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## **5. FIRE – FIGHTING MEASURES**

Suitable extinguishing media : In adaption to materials stored in the immediate neighbourhood.  
Extinguishing media not to be used: Water, foam



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**Special risks** : Development of hazardous combustion gases or vapours possible in the event of fire. Keep workplace dry. Do not allow product to come into contact with water. The following may develop in event of fire : Hydrochloric acid.

**Special protective equipment for fire fighting** : Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

**Other information** : Non-combustible. Prevent fire-fighting water from entering surface water or ground water.

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## **6. ACCIDENTAL RELEASE MEASURES**

**Person-related precautionary measures** : Avoid generation of dusts; do not inhale dusts. Avoid substance contact. Ensure supply of fresh air in enclosed rooms.

**Environmental –protection measures** : Do not allow to enter sewerage system

**Procedures for cleaning /absorption** : Take up dry, forward for disposal. Clean up affected area. Avoid generation of dusts.

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## **7. HANDLING AND STORAGE :**

**Handling** : No further requirements.

**Storage** : At +15°C to +25°C. Tightly closed.

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## **8. EXPOSURE CONTROLS/PERSONAL PERSONAL PROTECTIVE EQUIPMENT PROTECTION**

**Respiratory protection** : Require when dusts are generated.

**Eye protection** : Required

**Hand protection** : Required Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

**Industrial hygiene** : Immediately change contaminated clothing.

**Apply skin –protective barrier cream.** Wash hands after working with substance. Under no circumstances eat or drink at work place. Work under hood. Do not inhale substance.

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## **9. PHYSICAL AND CHEMICAL PROPERTIES**

Form	:	Crystals
Colour	:	Colourless
Odour	:	Pungent
pH value at g/l H <sub>2</sub> O(20°C)	:	< 1 (saturated solution)
Melting temperature	:	437° C
Boiling temperature(760mmHg):	:	331°C
Ignition temperature	:	Not available
Flash point	:	Not available
Explosion limits lower	:	Not available
Upper	:	Not available
Vapour pressure (190°C)	:	1.3 hPa
Relative vapour density	:	Not available
Density	:	Not available
Bulk density	:	1200 kg/m <sup>3</sup>
Solubility in water (20°C)	:	(decomposition)

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## **10. STABILITY AND REACTIVITY**

Conditions to be avoided : No information available.

Substance to be avoided : Alkalis.

Hazardous decomposition products : No information available.

Further information : Sensitive to moisture, hygroscopic.

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## **11. TOXICOLOGICAL INFORMATION**

Acute toxicity : LD<sub>50</sub> (oral, rat): 1688 mg/kg.

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### **Further toxicological information**

After eye contact : Burns.

After inhalation : Irritations of the mucous membranes, coughing and dyspnoea.

After skin contact : Burns. Risk of sensitization.



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After swallowing : Burns in mouth, throat, oesophagus and gastro - intestinal tract. No description of any further symptoms is available.

Further data : Further hazardous properties cannot be excluded. The product should be handled with the care usual when dealing with chemicals.

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## **12. ECOLOGICAL INFORMATION**

Ecotoxic effects : Quantitative data on the ecological effect of this product are not available  
Further ecologic data : Do not allow to enter waters, waste water, or soil.

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## **13. DISPOSAL METHODS**

Disposal in compliance with official regulations. Handle contaminated packaging as in the same way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled

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## **14. TRANSPORT INFORMATION**

GGVS/GGVE class: 8 Number and letter : 11c  
Transport over land ADR/RID class: 8 Number and letter : 11 c  
ADR/RID & GGVS/GGVE: Name of material : 2203 ZIRCONIUM TETRACHLORIDE

Sea transport IMDG IMDG class : 8 UN-NO. : 2503 Packaging group : 111  
Ems: 8-06 MFAG : 700  
Correct technical name : ZIRCONIUM TETRACHLORIDE

Air transport ICAO/IATA : 8 UN/ID-No. : 2503  
ICAO-TI & IATA-DGR : Packaging group: 111  
Correct technical name : ZIRCONIUM TETRACHLORIDE

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## **15. REGULATORY INFORMATION**

Labelling according to EC Directives

Symbol : C Corrosive



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R- Phrases : 14-22-34 Reacts violently with water.Harmful if swallowed.  
Causes burns.

S-phrases : 8-26-36/37/39-45 keep container dry. In case of contact with eyes,  
rinse immediately with plenty of water and seek  
medical advice. Wear suitable protective clothing,  
gloves and eye face protection . In case of accident  
or if you feel unwell, seek medical advice immediately  
(show the label where possible ).

EC-No. : 203-571-6 EC label

Water pollution class : 2 (polluting substance) (own classification)

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### **16. OTHER INFORMATION**

Reason for alteration

#### **General update**

The information contained here in is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.