



SAFETY DATA SHEET

1 IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Catalogue No : Z 10519

Product Name : Zirconium(IV) oxide

Manufacutre / Supplier Identification Company : Nice Chemicals (P) Ltd., PB No: 2217, Manimala Road, Edappally, Kochi - 682 024, Kerala, India.

Contact for Information : **Tel:** 91-484-2800212, 2802755, 2802536, 2801583
Fax : 0484 2802483

Emergany Telephone No : 0484 2801583

TeleFax No : 0484 2802483

2 COMPOSITION / INFORMATION ON INGREDIENTS

Synonyms : Zirconia

CAS - No : 1314-23-4

Molar Mass :

Molecular Weight : 123.22 g/mol

Molecular Formula : O₂Zr

EC - INDEX No :

EC - No : 215-227-2

Classification :

Concentration :

3 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EC-GHS/CLP] : Skin irritation (Category 2)
Eye irritation (Category 2)
Specific target organ toxicity - single exposure (Category 3)

Classification according to EU Directives 67/548/EEC or 1999/45/EC : Irritating to eyes, respiratory system and skin.

Label Elements


Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram





SAFETY DATA SHEET

Catalogue No	:	Z 10519
Product Name	:	Zirconium(IV) oxide
Signal word	:	Warning
Hazard statement(s)		
H315	:	Causes skin irritation.
H319	:	Causes serious eye irritation.
H335	:	May cause respiratory irritation.
Precautionary statement(s)		
P261	:	Avoid breathing dust.
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 Statements	:	none
According to European Directive 67/548/EEC as amended		
Hazard symbol(s)	:	
R-phrases(s) R36/37/38	:	Irritating to eyes, respiratory system and skin.
S-phrases(s) S26	:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36	:	Wear suitable protective clothing.
Other hazards	:	none

4 FIRST AID MEASURES

General advice	:	Consult a physician. Show this safety data sheet to the doctor in attendance.
After Inhalation	:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
After skin contact	:	Wash off with soap and plenty of water. Consult a physician.
After eye contact	:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.



SAFETY DATA SHEET

Catalogue No	:	Z 10519
Product Name	:	Zirconium(IV) oxide

After swallowing	:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most Important symptoms and effects, both acute and delayed	:	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Indication of any immediate medical attention and special treatment needed	:	no data available

5 FIRE - FIGHTING MEASURES

Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Advice for firefighters	:	Wear self contained breathing apparatus for fire fighting if necessary.
Further Information	:	No data available

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Environmental-protection	:	Do not let product enter drains. Pick up and arrange disposal without creating dust.
Methods and materials for containment and cleaning up	:	Sweep up and shovel. Keep in suitable, closed containers for disposal.

7 HANDLING AND STORAGE

Precautions for safe handling	:	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.
Conditions for safe storage, including any incompatibilities	:	Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Specific end users	:	no data available



SAFETY DATA SHEET

Catalogue No	:	Z 10519
Product Name	:	Zirconium(IV) oxide

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameter : Compnents with workplace control parameters

Exposure Controls

Appropriate engineering controls : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection : Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

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 EU Directive 89/686/EEC and standard EN 374 derived from it.

Immersion protection

Material : Nitrile rubber

Minimum layer thickness : 0,11 mm

Break through time : > 480 min

Material tested : Nice chemicals

Splash protection

Material : Nitrile rubber

Minimum layer thickness : 0,11 mm

Break through time : > 30 min

Body Protection : impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection : For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).



SAFETY DATA SHEET

Catalogue No	:	Z 10519
Product Name	:	Zirconium(IV) oxide

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Form : powder Colour : white
Odour	: No data available
Odour Threshold	: No data available
pH	: No data available
Melting Point/Freezing point	: Melting point/range: 2.700 °C - lit.
Initial Boiling point and boiling range	: 5.000 °C - lit.
Flash Point	: No data available
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper/lower flammability or explosive limits	: No data available
Vapour Pressure	: No data available
Vapour Density	: No data available
Relative density	: 5,89 g/mL at 25 °C
Water solubility	: insoluble
Partition coefficient: noctanol/water	: No data available
Autoignition temperature	: No data available
Viscosity	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Other Safety information	: No data available
Bulk density	: No data available

10 STABILITY AND REACTIVITY

Reactivity	: No data available
Chemical stability	: No data available



SAFETY DATA SHEET

Catalogue No	:	Z 10519
Product Name	:	Zirconium(IV) oxide
Conditions to be avoided	:	No data available
Substance to be avoided	:	No data available
Hazardous decomposition products	:	No data available
Possibility of hazardous reactions	:	No data available
incompatible materials	:	Strong oxidizing agents, Strong acids

11 TOXICOLOGICAL INFORMATION

Acute Toxicity : No data available

Further toxicological Information

Carcinogenicity : IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Skin corrosion/irritation : No data available

Eye Irritation test (rabbit) : No data available

Respiratory or skin Sensitization : No data available

Serious eye damage/eye irritation : No data available

Germ cell mutagenicity : No data available

After Inhalation : May be harmful if inhaled. Causes respiratory tract irritation.

After Skin contact : May be harmful if absorbed through skin. Causes skin irritation.

Eyes : Causes eye irritation.

After swallowing : May be harmful if swallowed.

After swallowing of large amounts : No data available

Further data : No data available

Reproductive toxicity : No data available

Specific target organ toxicity-single exposure : No data available

Specific target organ toxicity-repeated exposure : No data available

Signs and symptoms of Exposure : To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.



SAFETY DATA SHEET

Catalogue No	:	Z 10519
Product Name	:	Zirconium(IV) oxide

Additional Information	:	RTECS : ZH8800000
------------------------	---	-------------------

12 ECOLOGICAL INFORMATION

Toxicity	:	No data available
Toxicity to fish	:	No data available
Persistence and degradability	:	No data available
Biodegradability	:	No data available
Bioaccumulative potential	:	No data available
Bioaccumulation	:	No data available
Mobility in soil	:	No data available
Results of PBT and vPvB assessment	:	No data available
Other adverse effects	:	No data available

13 DISPOSAL METHOD

Waste treatment methods	
Product	: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging	: Dispose of as unused product.

14 TRANSPORT INFORMATION

UN number	:	ADR/RID: - IMDG: - IATA: -
UN Proper shipping name	:	ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods
Transport hazard class(es)	:	ADR/RID: - IMDG: - IATA: -
Packaging group	:	ADR/RID: - IMDG: - IATA: -



SAFETY DATA SHEET

Catalogue No	:	Z 10519
Product Name	:	Zirconium(IV) oxide

Environmental group	:	ADR/RID: - NO IMDGMarine pollutant: No IATA: -No
Special precaution for user	:	No data available

15 REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture	:	No data available
--	---	-------------------

Chemical safety assessment	:	No data available
----------------------------	---	-------------------

16 OTHER INFORMATION

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