

## 01 - IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY / UNDERTAKING

PRODUCT NAME	ZINC OXIDE
SUPPLIER	MLPC International 209 Avenue Charles DESPIAU 40370 RION DES LANDES Tel : 33-5-58-57-02-00 (International) 05-58-57-02-00 (France) Fax : 33-5-58-57-02-05 (International) 05-58-57-02-05 (France)
Emergency telephone number	33-5-58-57-02-00 (International) 05-58-57-02-00 (France)
ORPHILA	33-1-45-42-59-59 (International) 01-45-42-59-59 (France)

## 02 - HAZARDS IDENTIFICATION

MOST IMPORTANT HAZARDS	SAFETY INFORMATION : PLEASE READ THIS SHEET CAREFULLY
HEALTH EFFECTS	May cause irritation of eyes, respiratory system or skin.
ENVIRONMENTAL EFFECTS	Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
SPECIFIC HAZARDS / EC	NIL

## 03 - COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME OF THE SUBSTANCE	ZINC OXIDE
CAS	1314-13-2 ZINC OXIDE PARAFFINIC OIL THERMOPLASTIC
EINECS / ELINCS	215-222-5 ZINC OXIDE PARAFFINIC OIL THERMOPLASTIC
CHEMICAL NATURE OF THE PREPARATION	DISPERSION OF ZINC OXIDE (90 %) IN THERMOPLASTIC
ADDITIVES	Paraffinic oil (10 %) PCA's (IP346) < 3% No CE labelling
HAZARDOUS COMPONENTS	ZINC OXIDE (90 %)

## 04 - FIRST AID MEASURES

GENERAL ADVICE	.
INHALATION	Dust inhalation : Move to fresh air. In case of persistent problems : Consult a doctor.
SKIN CONTACT	Wash immediately and abundantly with water. In case of important contact : seek a medical advice.
EYE CONTACT	Wash immediately and abundantly with water for at least 15 minutes. If irritation persists, consult an ophthalmologist.
INGESTION	In case of problems : Consult a doctor.
PROTECTION OF FIRST-AIDERS	In case of insufficient ventilation, wear suitable respiratory equipment.

## 05 - FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA	Water spray, foam, dry powder.
SPECIFIC METHODS	Avoid the run-off of polluted water in the environnement.
SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS	Wear a self-contained breathing apparatus and protection equipment.

## 06 - ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION	Avoid contact with skin, eyes and inhalation of dust.
ENVIRONMENTAL PROTECTION	Do not let the product enter into drains. Do not contaminate surface water.

**METHODS FOR CLEANING UP**

Recovery

Shovel up.  
Recover the product and place in a dry labelled container.

Disposal

To eliminate in an authorized incineration station or otherwise in compliance with law enforced regulations.

**07 - HANDLING AND STORAGE**

**HANDLING**

Technical measures / Precautions

Storage and handling precautions applicable to products : DUST FORMING.  
Provide appropriate exhaust and ventilation at machinery.  
Provide appropriate device to allow to rinse eyes.

Safe handling advice

If dust is formed, wear a dust mask.

**STORAGE**

Technical measures / Storage conditions

Store protected from moisture.

Incompatible products

Oxidants, strong acids.

**PACKAGING MATERIALS**

Recommended

Boxes with polyethylene liner or polyethylen bags..

**08 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

**PROTECTIVE PROVISIONS**

Provide sufficient air exchange and/or exhaust in work areas.

**CONTROL PARAMETERS**

Exposure limits

Dusts : FRANCE 1999 VME = 10 mg/m<sup>3</sup>  
Respirable dusts : FRANCE 1999 VME = 5 mg/m<sup>3</sup>  
TLV-TWA 8 h : dust 10 mg/m<sup>3</sup> ; smoke 5 mg/m<sup>3</sup>

**PERSONAL PROTECTION EQUIPMENT**

Respiratory protection

Dust mask.

Hand protection

Gloves.

Eye protection

Safety glasses.

Skin and body protection

Protective clothing.

Specific hygiene measures

Maintain strict body hygiene.  
Avoid contact with skin, eyes and inhalation of dust.

**09 - PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE (20°C)

Solid.

COLOR

White to yellowish

ODOUR

Nil.

pH

Not applicable.

BOILING POINT / RANGE

Not applicable.

MELTING POINT / RANGE

1975 °C with sublimation

DECOMPOSITION TEMPERATURE

Sublimation.

FLASH POINT

No data available.

EXPLOSIVE LIMITS

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Lower

No data available.

Higher

No data available.

BULK DENSITY

3600 kg/m<sup>3</sup> (20 °C)

SOLUBILITY

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Water

Slightly soluble : < 2 g/l

Solvents

Acids and alcalis.

## 10 - STABILITY AND REACTIVITY

MATERIALS TO AVOID Oxidants, strong acids.  
HAZARDOUS DECOMPOSITION PRODUCTS Nil.

## 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY .  
Inhalation LC 50 / inhalation / rat / 4 hours : > 5,7 mg/l.  
Ingestion L.DL0 / oral / human : 500 mg/kg  
LD 50 / oral / rat : > 15000 mg/kg  
Skin-contact No data available.  
LOCAL EFFECTS .  
Inhalation No data available.  
Skin-contact In animals (rabbits) : Slightly irritating.  
Eye-contact In animals (rabbits) : Slightly irritating.  
SENSITIZATION .  
Skin-contact In animals (guinea-pig) : Not sensitizer to skin.  
CHRONIC TOXICITY 50 mg ZnO / day  
SPECIFIC EFFECTS GENOTOXICITE : tests and vitro et in vivo at short time: non genotoxic.  
CANCEROGENESE : Experimentation with different kinds of animals didn't show cancerogenic effects ; no proves for cancerogenic effects on humans.

## 12- ECOLOGICAL INFORMATION

- NO INFORMATION AVAILABLE .  
PERSISTENCE / DEGRADABILITY Not applicable.  
BIOACCUMULATION Not applicable.  
ECOTOXICITY .  
AQUATIC TOXICITY .  
Acute toxicity EC 50 (Selenastrum capricornutum) 72 h : 170 µg/l ZnO

## 13 - DISPOSAL CONSIDERATIONS

DISPOSAL OF PRODUCT To eliminate in an authorized incineration station or otherwise in compliance with law enforced regulations.  
DISPOSAL OF PACKAGING To eliminate as industrial or dangerous disposals in function of the nature and degree of pollutions.

## 14 - TRANSPORT INFORMATION

UN Number 3077  
ADR / RID Class : 9  
Packaging group : III  
\* Prescriptions RID / ADR Labels : 9 + dangerous for the environment  
IMDG Class : 9  
Packaging group : III  
\* Prescriptions IMDG Labels : 9 + dangerous for the environment  
IATA Class : 9  
Packaging group : III  
Prescriptions IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S  
(zinc oxide), 9, III

## 15 - REGULATORY INFORMATION

EEC DIRECTIVE	.
SAFETY DATA SHEETS	D.91/155/EEC amended by D.2001/58/CE : Dangerous substances and preparations.
EC CLASSIFICATION / LABELLING	D. 2001/59/EEC amended by D. 2004/73/EEC : (29 rd APT)
DANGEROUS PREPARATIONS	N (DANGEROUS FOR THE ENVIRONMENT)
	R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
	S 60 This material and its container must be disposed of as hazardous waste.
	S 61 Avoid release to the environment. Refer to special instructions / Safety data sheets.
SAFETY DATA SHEET	D.2001/58/EC du 27/07/2001
DANGEROUS PREPARATION	France : Arrêté du 9 novembre 2004 définissant les critères de classification et les conditions d'étiquetage et d'emballage des préparations dangereuses et transposant la directive 1999/45/CE du Parlement européen et du Conseil du 31 mai 1999.

## 16 - OTHER INFORMATION

BIBLIOGRAPHY REFERENCES	Toxicity and safe handling of rubber chemicals (BRMA 1999). Dangerous properties of industrial chemicals (SAX 6th edition). Registry of toxic effects of chemicals substances (RTECS of NIOSH). Aquatic toxicology (VAN LEEUWEN 1985). INRS documentation.
Chemical Name :	ZINC OXIDE
Risk Phrases	R 50/53.

This information applies to the PRODUCT AS SUCH and conforming to specifications of MLPC International.

In case of formulations or mixtures, it is necessary to ascertain that a new danger will not appear.

The information contained is based on our knowledge of the product, at the date of publishing and it is given quite sincerely. However the revision of some data is in progress.

Users are advised of possible additional hazards when the product is used in application for which it was not intended. This sheet shall only be used and reproduced for prevention and security purposes.

The references to legislative, regulatory and codes of practice documents cannot be considered as exhaustive.

It is the responsibility of the person receiving the product to refer to the totality of the official documents concerning the use, the possession and the handling of the product.

It is also the responsibility of the handlers of the product to pass on to any subsequent persons who will come into contact with the product.

The ( \* ) indicate the modifications compared to the previous version.