

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

PRODUCT NAME	BIS(N,N-DIMETHYLDITHIOCARBAMATE) DE ZINC
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	Harmful if swallowed ; Very toxic by inhalation ; Irritating to respiratory system ; may cause sensitisation by skin contact ; harmful : danger of serious damage to health by prolonged exposure through inhalation and in contact with skin
ENVIRONMENTAL EFFECTS	Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
PHYSICAL AND CHEMICAL HAZARDS	Dust can form explosive mixture with air.
SPECIFIC HAZARDS / EC	HARMFUL AND DANGEROUS FOR THE ENVIRONMENT Harmful if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

03 - COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME OF THE SUBSTANCE	ZINC DIMETHYL DITHIOCARBAMATE
GENERIC NAME	Vulcanising accelerator.
Synonyms	ZIRAM
CAS	137-30-4 T+,N R22 R26 R37 R41 R43 R48/22 R50/53
EINECS / ELINCS	205-288-3
TSCA	Listed
ADDITIVES	Paraffinic oil (2%) PCA's (IP346) < 3% No CE labelling
CHEMICAL FORMULA	C6-H12-N2-S4-Zn

04 - FIRST AID MEASURES

GENERAL ADVICE	Take off immediately all contaminated clothing (including shoes).
INHALATION	Move to fresh air. Oxygen or artificial respiration if needed. Hospitalize immediately..
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	Do not induce vomiting, rinse mouth and lips with plenty of water if the subject is conscious, then hospitalize immediately.
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.
EXTINGUISHING MEDIA WHICH ARE NOT SUITABLE	All other extinguishants.

SPECIFIC HAZARDS	Thermal decomposition in : SO _x , NO _x .
SPECIFIC METHODS	Remove the combustible products. Hose down gases / fumes / dust with water spray.
SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS	Wear a self-contained breathing apparatus.

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 and heat.
Incompatible products	Oxidants, strong acids.
PACKAGING MATERIALS	.
Recommended	Paper bags. Cardboard drums.

08 - EXPOSURE CONTROLS / PERSONAL PROTECTION

PROTECTIVE PROVISIONS	Provide sufficient air exchange and/or exhaust in work areas.
CONTROL PARAMETERS	.
Exposure limits	Dusts : <2.5 mg/m ³ (TLV) BRMA.
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.
ODOUR	Nil.
pH	Not applicable.
BOILING POINT / RANGE	Not applicable.
MELTING POINT / RANGE	250 - 255 °C
FLASH POINT	No data available.
EXPLOSIVE LIMITS	.

Lower	No data available.
Higher	No data available.
DENSITY	1650 kg/m ³ (20 °C)
BULK DENSITY	560 kg/m ³ (20 °C)
SOLUBILITY	.
Water	Insoluble.
Solvents	Aceton, ethylic alcohol, benzol.

10 - STABILITY AND REACTIVITY

CONDITION TO AVOID	Store protected from moisture and heat.
MATERIALS TO AVOID	Oxidants, strong acids.
HAZARDOUS DECOMPOSITION PRODUCTS	Nitrogen oxides, carbon dioxide, sulfur oxides.
FURTHER INFORMATION	Risk of formation of nitrosamines with nitroso groups.

11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY	.
Inhalation	LC50 / inhalation / rat / 4 hours : 70 mg/m ³ (Very toxic).
Ingestion	LD50 / oral / rat : 320 mg/kg (harmful).
Skin-contact	In animals : practically not harmful. No mortality in rabbits at 2000 mg/kg.
LOCAL EFFECTS	.
Inhalation	Irritating.
Skin-contact	Irritating.
Eye-contact	Irritating.
SENSITIZATION	.
Skin-contact	Prolonged or repeated contact with skin can cause allergic reactions in susceptible persons. In animals (guinea-pig) : sensitizer to skin.
CHRONIC TOXICITY	.
SPECIFIC EFFECTS	MUTAGENICITY : mutagen categorie 3
FURTHER INFORMATION	Antabuse effect.

12- ECOLOGICAL INFORMATION

PERSISTENCE / DEGRADABILITY	.
In water	Inherently biodegradable. Slowly hydrolysable.
In air	Not biodegradable in atmosphère.
BIOACCUMULATION	Bioconcentration factor (FBC) : <100
ECOTOXICITY	.
AQUATIC TOXICITY	.
Acute toxicity	Fish LC50, 96 hours : 0.0097 - 10 mg/l (OCDE 203) very toxic Daphnia : CE(I)50, 48 hours : 0.048 - 0.23 mg/l (OCDE 202) Very toxic Algae : LC50, 96 hours : 1.2 mg/l toxic Bacteria : CE0 (Pseudomonas putida) : >200 mg/l slightly harmful
Long term toxicity	Daphnia (reproduction inhibition) 21 days, LOEC (min concentration without effect) : 0.010 mg/l
TERRESTRIAL TOXICITY	.
Acute toxicity	Earthworm, artificial soil test CL50, 14 days : 140 mg/kg OCDE 207 Birds : LD50, 5 days : 5156 mg/kg

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

2811

ADR / RID

Class : 6.1
Packaging group : I

* Prescriptions RID / ADR

Labels : 6.1 + dangerous for the environment

IMDG

Class : 6.1
Packaging group : I

* Prescriptions IMDG

Labels : 6.1 + dangerous for the environment

IATA

Class : 6.1
Packaging group : I

Prescriptions IATA

Label : TOXIC
Passengers : Packaging instruction 606 (5 kg max by package)
Cargo : Packaging instruction 607 (50 kg net max by package)
Special disposition : A 3

15 - REGULATORY INFORMATION

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)

HAZARDOUS SUBSTANCES

T+ (Very toxic) / N (Dangerous for environment)

R 22 Harmful if swallowed.

R 26 Very toxic by inhalation

R 37 Irrating to respiratory system

R 41 Risk of serious damage to eyes.

R 43 May cause sensitization by skin contact.

R 48/22 Harmful : danger of serious damage to health by prolonged exposure if swallowed

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S 22 Do not breathe dust.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 28 After contact with skin, wash immediately with plenty of water.

S 36/37/39 Wear suitable protective clothing, gloves and eye / face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).

S 60 This material and its container must be disposed of as hazardous waste

S 61 Avoid release to the environment. Refer to special instruction/ Safety data sheets

Nr in ANNEX

006-012-00-2

EC Nr (ENEICS / ELINCS)

205-288-3

NATIONAL REGULATION

WGK 3 (VCI classification in GERMANY)

SAFETY DATA SHEET

D.2001/58/EC du 27/07/2001

HAZARDOUS SUBSTANCES

Arrêté du 9 novembre 2004 définissant les critères de classification et les conditions d'étiquetage et d'emballage des substances et transposant la directive 1999/45/CE du Parlement européen et du Conseil du 31 mai 1999.

OCCUPATIONAL DISEASES

France : Code de la Sécurité Sociale : article L461-4, tableau N°65.

OCCUPATIONAL TYPE DISEASES

Not relevant.

SPECIAL MEDICAL SURVEILLANCE

Not relevant.

INVENTORIES

DSL / NDSL (CANADA) : listed N°2188
AICS (AUSTRALIA) : listed
ENCS (JAPAN) : listed N°9-607
ECL (KOREA) : listed N°KE-03058

16 - OTHER INFORMATION

RECOMMENDED USES

Vulcanising accelerator.

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 dimethyldithiocarbamate

Risk Phrases

R22 R26 R37 R41 R43 R48/22 R50/53

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.