

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

PRODUCT NAME	THIODICARBONIC DIAMIDE TETRAMETHYL
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. May cause sensitization by skin contact.
ENVIRONMENTAL EFFECTS	Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
PHYSICAL AND CHEMICAL HAZARDS	In contact with acids, liberates toxic gases (SOx and NOx). Dust can form explosive mixture with air.
SPECIFIC HAZARDS / EC	HARMFUL AND DANGEROUS FOR THE ENVIRONMENT Harmful if swallowed. May cause sensitization by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 03 - COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME OF THE SUBSTANCE	TETRAMETHYL THIURAM MONOSULFIDE
GENERIC NAME	Vulcanising accelerator.
Synonyms	BIS (DIMETHYLTHIOCARBAMOYL) MONOSULFIDE
CAS	97-74-5
EINECS / ELINCS	202-605-7
TSCA	Listed
HAZARDOUS COMPONENTS	Nil.
CHEMICAL FORMULA	C6-H12-N2-S3

## 04 - FIRST AID MEASURES

GENERAL ADVICE	Take off immediately all contaminated clothing.
INHALATION	Move to fresh air. Oxygen or artificial respiration if needed. Consult a doctor.
SKIN CONTACT	Wash immediately and abundantly with soap and water.
EYE CONTACT	Wash immediately and abundantly with water for at least 15 minutes. If irritation persists, consult an ophthalmologist.
INGESTION	Do not induce vomiting. In case of problems : Consult a doctor.

## 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 : SOx, NOx.
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

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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

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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

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Technical measures / Storage conditions

Store protected from moisture and heat.

Incompatible products

Oxidants, strong acids.

PACKAGING MATERIALS

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Recommended

Paper bags.

## 08 - EXPOSURE CONTROLS / PERSONAL PROTECTION

PROTECTIVE PROVISIONS

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

CONTROL PARAMETERS

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Exposure limits

Dusts : FRANCE 1999 VME = 10 mg/m<sup>3</sup>  
Respirable dusts : FRANCE 1999 VME = 5 mg/m<sup>3</sup>

PERSONAL PROTECTION EQUIPMENT

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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

Yellow.

ODOUR

Characteristic.

pH

Not applicable.

MELTING POINT / RANGE

105 - 110 °C

FLASH POINT

No data available.

EXPLOSIVE LIMITS

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Lower

No data available.

Higher

No data available.

DENSITY

1380 kg/m<sup>3</sup> (20 °C)

BULK DENSITY	460 kg/m3 (20 °C)
SOLUBILITY	.
Water	Insoluble when cold.
Solvents	Alcohols, acetone, chloroform.
PARTITION COEFFICIENT (n-octanol / water)	log Pow = 3.2

## 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	Thermal decomposition in toxic products : SOx, NOx

## 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY	.
Inhalation	No reported effect on man in industry.
Ingestion	LD50 / oral / rat : 733 - 2374 mg/kg (harmful)
Skin-contact	No reported effect on man in industry.
LOCAL EFFECTS	.
Inhalation	Irritating.
Skin-contact	In animals (rabbits) : after occlusive contact (24 hours). Slightly irritating.
Eye-contact	In animals (rabbits) : Slightly irritating.
SENSITIZATION	.
Skin-contact	Proven human sensitizer.
SPECIFIC EFFECTS	GENOTOXICITY : In vivo, not genotoxic. CARCINOGENICITY : Limited available data do not indicate a potential for cancer (rodents). REPRODUCTIVE TOXICITY : Absence of congenital malformations.
FURTHER INFORMATION	Antabuse effect.

## 12- ECOLOGICAL INFORMATION

PERSISTENCE / DEGRADABILITY	.
In water	Biodegradation : 0% after 28 days.
BIOACCUMULATION	Slightly bioaccumulable.
AQUATIC TOXICITY	.
Acute toxicity	Fish : POECILIA RETICULATA LC50, 96 hours : 2.4 - 5.3 mg/l Daphnia : DAPHNIA MAGNA CE(I)50, 48 hours : 1.6 - 2.9 mg/l Algae : CHORELLA PYRENOIDOSA CI50, 96 hours : 1 mg/l Microtox test : CE 15 min : 1.9 g/l
Long term toxicity	Fish (min concentration without effect) : LOEC (mortality), 60 days : 0.032 mg/l Daphnia (reproduction inhibition) : CE(I)50, 21 days : 0.149 - 182 mg/l

## 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
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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	Labels : 9 (miscellaneous) + dangerous for the environment Passengers : Packaging instruction 911 (no restricted quantity by package) Cargo : Packaging instruction 911 (no restricted quantity by package) Special disposition : A 97

## 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	Xn (HARMFUL) / N (DANGEROUS FOR ENVIRONMENT) R 22 Harmful if swallowed. R 43 May cause sensitization by skin contact. R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S 24 Avoid contact with skin. S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 37 Wear suitable gloves. S 61 Avoid release to the environment. Refer to special instructions / Safety data sheets.
Nr in ANNEX	006-080-00-3
EC Nr (ENEICS / ELINCS)	202-605-7
NATIONAL REGULATION	WGK 2 (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°956 AICS (AUSTRALIA) : listed ENCS (JAPAN) : listed N°2-1820X ECL (KOREA) : listed N°KE-33634

## 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 :	Tetramethyl thiuram monosulfide
Risk Phrases	R22 ; R43 ; R51/53



# MATERIAL SAFETY DATA SHEET

Product :

**EKALAND TMTM GR**

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Version : 8

Date : 04/23/2009

Cancel and replaces version 7 of 06/04/2008

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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.