



MERCHEM LIMITED

SAFETY DATA SHEET

MERCURE F
MSDS No. 05/20.03.2015

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

1.1 Product Identifier

Product Name Mercure F
Synonym Blend containing 2,2'-dithiobisbenzothiazole,
Diphenylguanidine and Hexamethylene Tetramine.

Use of the Substance/Mixture

Identified uses Rubber vulcanization accelerator ,

1.2 Manufacturer or supplier's details

Company/Undertaking identification address Merchem Limited
Grove Centre,
44- Development Plot,
Kalamassery,
Cochin – 683 109, Kerala, India
Telephone + 91-484-4089300
Telefax + 91-484-4089310

1.3 Emergency Telephone Number

Emergency Telephone Number + 91-484-4089300

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to EU directives 67/548/EEC or 1999/45/EC

N
Xn
Xi
R22
R36/3738
R 42/43
R51/53

EC Number: -Nil

Annex 1 Index Number: Nil

REGULATION (EC) No. 1272/2008

Classification of the substance or mixture

Acute toxicity,oral Category 4; Sensitisation, Skin Category 1; Eye damage/eye irritation Category 2A;
Acute toxicity,inhalation Category 4; Specific target organ toxicity, single exposure; Respiratory tract
irritation Category 3; Hazardous to the aquatic environment, long-term hazard Category 1



MERCHEM LIMITED

SAFETY DATA SHEET

MERCURE F
MSDS No. 05/20.03.2015

2.2 Label elements

Product Name: Mercure F

Hazard pictograms



Signal Word

Warning

Hazard Statements

- H302 Harmful if swallowed.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled
- H335 May cause respiratory irritation.
- H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements - Prevention

- P262 Avoid contact with skin ,eyes and clothing
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection..

Precautionary Statements - Response

- P302+P352 If on skin,wash with plenty of soap and water
- P391 Collect spillage.Hazardous to the aquatic environment
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Precautionary Statements - storage

- P402+P404 Store in a dry place. Store in a closed container.

Precautionary Statements - Disposal

- P501 Dispose of contents/ container to an approved waste disposal plant.

Supplemental Hazard Statements : None

Other hazards

None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable. Substance is a mixture



MERCHEM LIMITED

SAFETY DATA SHEET

MERCURE F
MSDS No. 05/20.03.2015

3.2 Mixtures

Chemical description: : Mixture containing 2, 2'-dithiobis benzothiazole, hexamethylenetetramine, 1,3-diphenyl guanidine in appropriate proportions to obtain the physical and chemical properties required

Chemical Name	CAS No.	EC No.	Annex-1 Index No.	Weight %
2,2'- Dithiobisbenzothiazole	120-78-5	204-424-9	613-135-00-0	>1%
Diphenylguanidine	102-06-7	203-002-1	612-149-00-4	<20%
Hexamethylenetetramine	100-97-0	202-905-8	612-101-00-2	>1%
White mineral oil	8042-47-5	-	-	1-2

SECTION 4: FIRST AID MEASURES

4.1 Description of first-aid measures

Symptoms and effects : Dust must be irritating to the respiratory tract and cause

Inhalation : Move to fresh air, if symptoms persist, seek medical advice

Skin : Wash immediately with soap and water. If symptoms (irritation) persists, obtain medical attention.

Eyes : Rinse immediately as long as a possible with plenty of water. Seek medical advice if irritation persist

Ingestion : If swallowed seek immediate medical attention.
Do not induce vomiting. Rinse mouth and give water to drink .Seek medical attention

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of immediate medical attention and special treatment needed

no data available

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Use water spray, foam, dry chemical or carbon dioxide. Do not use water jet. Avoid dust generation

Non suitable extinguishing agents: NP



MERCHEM LIMITED

SAFETY DATA SHEET

MERCURE F
MSDS No. 05/20.03.2015

5.2 Specific hazards arising from the substance or mixture

- Carbon oxides,
- nitrogen oxides (NO_x),
- Sulphur oxides

5.3 Protective Equipment and Precautions for Firefighters

- Wear self contained breathing apparatus and suitable protective clothing for firefighting if necessary

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

- Use personal protective equipment.
- Avoid dust formation.
- Ensure adequate ventilation.
- Evacuate personnel to safe areas.
- Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

- Prevent further leakage or spillage if safe to do so.
- Do not let product enter drains.
- Discharge into the environment must be avoided

6.3 Methods and materials for containment and cleaning up

- Pick up and arrange disposal without creating dust.
- Collect spillage by mechanical means.
- Keep in suitable, closed containers for disposal.
- Ensure personal protection during removal of spillage.

6.4 Reference to other sections

See section 7 &8 and for disposal see section 13. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

- Avoid contact with skin and eyes.
- Avoid formation of dust and aerosols.
- Take measures against static electric charges.
- Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.



MERCHEM LIMITED

SAFETY DATA SHEET

MERCURE F
MSDS No. 05/20.03.2015

7.2 Conditions for safe storage, including any incompatibilities

- Store in cool place.
- Keep container tightly closed in a dry and well-ventilated place.
- Take precautionary measures against static discharges.
- Keep away from oxidising agents, acids, alkalis, moisture, heat and direct sunlight.
- Suitable containers : High density polyethylene (HDPE) laminated paper bags with polythene liner inside.
- Fire-fighting measures in storage area
- Storage Temperature Ambient (<40°)

7.3 Specific end uses

- Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: EXPOSURE CONTROL/PERSONNEL PROTECTION

8.1 Control parameters

- Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Local Exhaust ventilation should be provided.. Do not smoke and avoid open flames or other ignition sources. Avoid prolonged contact or/and inhalation.

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). An eye wash device should be available in the work area where the product is handled

Skin Protection : Neoprene or nitrile gloves should be worn to prevent irritation and possible absorption. 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. Cloth gloves are not recommended. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands

Hand Protection :Complete suit protecting against chemicals, 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).

Environmental exposure controls:Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.



MERCHEM LIMITED

SAFETY DATA SHEET

MERCURE F
MSDS No. 05/20.03.2015

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance	:	Pale yellow powder
b) Odour	:	characteristic
c) pH	:	Not applicable
d) Melting point /range	:	140-145
e) Boiling range	:	Not applicable
f) Initial boiling point and boiling range	:	no data available
g) Flash point	:	no data available
h) Evaporation rate	:	no data available
i) Flammability (solid, gas)	:	no data available
j) Upper/lower flammability or explosive limits	:	no data available
k) specific gravity	:	1.4 at 25°C
l) Water solubility	:	Partly soluble
m) Solubility (other)	:	Soluble in Chloroform, Benzene
n) Auto-ignition temperature	:	no data available
o) Decomposition temperature	:	no data available
p) Explosive properties	:	In common with many organic compounds in powder form it can produce flammable dust clouds in air.
q) Oxidizing properties	:	No data available

9.2 Other information

No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

- no data available

10.2 Chemical Stability

- Stable under recommended storage and handling conditions (See section 7)

10.3 Possibility of hazardous reactions

- Hydrolysis in acid or alkali media.

10.4 Conditions to Avoid

- Keep away from heat, sparks and flame. Avoid contact with strong oxidants.

10.5 Incompatible materials to avoid

- Oxidizing agents, acids and alkalis

10.6 Hazardous Decomposition Products

- At temperatures higher than 50°C or/and humidity, it decomposes emitting SH₂, mercaptanes and formaldehyde.

11 Combustion products: CO (in defect of oxygen), CO₂, SO_x, and NO_x.



MERCHEM LIMITED

SAFETY DATA SHEET

MERCURE F
MSDS No. 05/20.03.2015

11.1 Information on toxicological effects

Acute oral toxicity (LD50/oral/rat):	>7500 mg/Kg	350mg/kg
Acute dermal toxicity (LD50/dermal/rabbit):	>7500 mg/Kg	>2100mg/kg
Acute inhalational toxicity:	: May cause mild respiratory irritation	
Ingestion	: Harmful if swallowed. May cause head ache, nausea, vomiting, and gastrointestinal irritation	
Eye irritation	: Irritating to eyes	
Skin irritation/Sensitization	: Irritating to skin, Sensitization possible through skin contact	
Mutagenic Effects	: Did not show mutagenic effects in animal experiments	
Reproductive toxicity	: No toxicity to reproduction	
Carcinogenic effects	: Did not show carcinogenic effects in animal experiments	
Target Organ Effects:	No data available	
Human experience:	No data available	

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity

May cause long-term adverse effects in the aquatic environment. and any disposal should be as per the local regulations .

Ecological Information's on the major component viz., 2,2'-dithiobisbenzothiazole;

Ecotoxicity

Fish :	96h-LC50 (Lepomis macrochirus): 82 mg/l.
	96h-LC50 (Oncorhynchus mykiss): 66 mg/l.
	96h-LC50 (Pimephales promelas): > 1000 mg/l.
	48h-EC50 (Daphnia magna): 82 mg/l.
Daphnia:	48h-EC50 (Daphnia magna): 82 mg/l.
Algae:	48h-EC50 (Daphnia magna): 82 mg/l.

12.2 Mobility in soil

It has high mobility in soil

12.3 Persistence and degradability

There are no data available concerning on the persistence and degradability of the product in natural systems. The product contains compounds that may be susceptible to biodegradation

12.4 Bioaccumulative Potential

No data on the bioaccumulation were found in literature. The product contains compounds that do not accumulate in aquatic organisms and it has high mobility in soil

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.



MERCHEM LIMITED

SAFETY DATA SHEET

MERCURE F
MSDS No. 05/20.03.2015

12.7 Other information

Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground. Also poisonous for fish and plankton in water bodies. Very toxic for aquatic organisms

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Disposal Method

Product

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Companies which recover, dispose, store, transport or handle waste should comply with Dir. 91/156/EEC on waste or other local, national or community provisions.

Packing

- Dispose off in accordance with local regulations

SECTION 14: TRANSPORT INFORMATION

14.1 Road transport (ADR/RID/ADN)

ADR/RID Class	9
UN-No	3077
Packing Group	III
Hazard label	Hazardous for the environment
Proper Shipping Name	Environmentally hazardous substance,solid,n.o.s

14.2 Sea transport (IMDG)

Class	9
UN-No	3077
Packing Group	III
Marine pollutant	Yes
Hazard label	Hazardous for the environment
Proper Shipping Name	Environmentally hazardous substance,solid,n.o.s

14.3 Air transport (ICAO-TI/IATA)

Class	9
UN-No	3077
Packing Group	III
Proper Shipping Name	Environmentally hazardous substance,solid,n.o.s

14.4 Other information

No data available

14.5 Environmental hazards

Information on environmental hazards, if relevant, pls. see 14.1 - 14.3.

14.6 Special precautions for user

Stable at room temperature and during transport. Transport in properly sealed and labelled containers.



MERCHEM LIMITED

SAFETY DATA SHEET

MERCURE F
MSDS No. 05/20.03.2015

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation 1907/2006 REGULATION (EC) No 1272/2008

Classification according to EU directives 67/548/EEC or 1999/45/EC

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: OTHER INFORMATION

Issue No.	2
Issue date date:	20.03.2015
Revision No.	0
Reason for revision:	Reviewed & revamped based on the guide lines of Regulation (EC) No 1907/2006

List of relevant R(isk)-phrase(s)

- R22 Harmful if swallowed.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R42/43 May cause sensitization by inhalation and skin contact.
- R51/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

List of relevant S(afety)-phrase(s)

- S22: Do not breathe dust.
- S24: Avoid contact with skin.
- S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
- S60 - This material and its container must be disposed of as hazardous waste
- S61 - Avoid release to the environment.

Classification of dangerous substance directive (67/548/EEC)

- N Dangerous for the environment
- Xn Harmful
- Xi Irritant

Training advice

Provide adequate information, instruction and training to operators

Further information for the material safety data sheet

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.

End of Material Safety Data Sheet