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MATERIAL SAFETY DATA SHEET

MSDS # PMC/RC/027/06

Updated on **02-Jan-2006**
Product Name **ACCICURE F**
Revision Number **+REV04**
UN Number **3077**
CAS No.

Health Hazard :	1
Fire Hazard :	1
Reactivity :	0
Personal Protection :	X

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

PRODUCT NAME : ACCICURE F

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Blend of (1), (2) & (3) detailed bellow:

HAZARDOUS INGREDIENT(S)	CAS No.	%(w/w)	Symbol	R Phrases
(1) Dibenzothiazole disulphide	120-78-5	70-74	Xi,N	R36/37/38/43
(2)1,3-Diphenylguanidine	102-06-7	10-14	Xn,N	R43 R51/53
(3) Hexamethylenetetramine	100-97-0	13-17	Xi	R36/38

3. HAZARDS IDENTIFICATION

This health hazard assessment is based on a consideration of the composition of this product and the predominant component benzothiazole disulphide.
Possible risk of irreversible effects.
Irritating to eyes, respiratory system and maybe, skin.
May cause sensitisation by skin contact. Some clinical evidence of skin sensitisation has been reported, but few problems encountered in use.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Group A dust. The material can form flammable dust clouds in air. In common with many organic compounds in powder form it can produce flammable dust clouds in air.

4. FIRST-AID MEASURES

Inhalation	Remove patient from exposure. Obtain medical attention if ill effects occur.
Skin Contact	Remove contaminated clothing. Wash skin immediately with plenty of soap and water. If symptoms (irritation or blistering) occur, obtain medical attention. Contaminated clothing should be laundered before re-use.
Eye Contact	Immediately irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 10 minutes. Obtain immediate medical attention.
Ingestion	Do not induce vomiting. Wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Obtain medical attention.

Further Medical Treatment

Symptomatic treatment and supportive therapy as indicated.

5. FIRE-FIGHTING MEASURES

Requires only routine fire precautions

Combustible.	The material can form flammable dust clouds in air. Take precautionary measures against static discharges.
Combustion : products	Oxides of carbon, nitrogen and sulphur

See OTHER INFORMATION

Extinguishing media:	Water spray, foam, dry powder or CO ₂ . Do not use water jet. (Avoid dust generation.)
Fire Fighting Protective Equipment	A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Do not allow to enter drains, sewers or watercourses.
Control dust formation. (See 'Fire fighting measures'.).
Collect spillages by mechanical means.
Transfer to a container for disposal or recovery.
Ensure suitable personal protection during removal of spillages.

7. HANDLING AND STORAGE

7.1 HANDLING

Control dust formation. (See 'Fire fighting measures'.).
Avoid contact with skin and eyes.
Avoid inhalation of high concentrations of dusts. Atmospheric concentrations should be minimised and kept as low as reasonably practicable.

7.2 STORAGE

In common with many organic compounds in powder form it can produce flammable dust clouds in air.
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.

Storage Temperature Ambient (<40°C)
Storage Life 1 year(s)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Wear suitable gloves and eye/face protection.
Wear suitable respiratory protective equipment if exposure to high levels of dust are likely.

Occupational Exposure Limits

No Occupational Exposure Limit listed but 2.5 mg/m³ for total dust is recommended

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Powder
Colour	white-cream
Odour	No discernible odour
Boiling Point (Deg C)	No data.
Melting Point (Deg C)	140 Min
Flash Point (Deg C)	No data.
Flammable Limits	No data.
Auto Ignition	
Temperature (Deg C)	No data.
Explosive Properties	In common with many organic compounds in powder form it can produce flammable dust clouds in air.
Oxidising Properties	No data.
Vap. Pressure (mm Hg)	No data.
Solubility (Water)	Partly soluble
Solubility (Other)	Soluble in Chloroform
Partition Coefficient	No data.
Specific Gravity	1.46 (typical)

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions of handling, use & transportation.
Hazardous Polymerisation:	Will not occur
Conditions to avoid:	Keep away from heat, sparks & flame.
Materials to avoid:	Oxidizing agents, acids and alkalis.
Hazardous Decomposition Product(s)	See 'Fire fighting measures'.
	See OTHER INFORMATION

11. TOXICOLOGICAL INFORMATION

This health hazard assessment is based on a consideration of the composition of this product.

CAS #	120-78-5	102-06-7
Acute Oral Toxicity	LD50 (Rat) >7500 mg/kg	350 mg/kg
Acute Dermal Toxicity	LD50 (Rabbit) >7500 mg/kg	>2100 mg/kg

Ingestion:	Swallowing may cause serious illness.
Inhalation:	May cause mild respiratory irritation.

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Skin Contact	May cause an allergic skin reaction. May cause a rash and itching of the skin.
Eye Contact	Dust may cause irritation. Symptoms may include redness, swelling and tearing.
Long Term Exposure:	No data
Carcinogenicity :	No data
Genotoxicity:	No data

12. ECOLOGICAL INFORMATION

This environmental hazard assessment is based on information available on the components of the formulation.

Acute aquatic Toxicity: Harmful to aquatic organisms.

Acute Fish Toxicity :	CAS #	120-78-5	102-06-7
LC50 (Rainbow Trout) (96 hour) (static)		66mg/l	11 mg/l
LC50 (Bluegill Sunfish) (96 hour) (static)		82mg/l	9.6 mg/l
EC50 (Daphnia Magna) (48 hour)		82mg/l	17 mg/l
Acute Algae Toxicity :			
EC50 Algae (96 hr)		.7 mg/l	1.7 mg/l

Environmental Fate and Distribution

Solid with low volatility.

The product has low potential for bioaccumulation.

Persistence and Degradation

The product shows no evidence for biodegradability in water.

13. DISPOSAL CONSIDERATIONS



Disposal should be in accordance with local, state or national legislation.

14. TRANSPORT INFORMATION

Not Classified as Dangerous for Transport.

Marine Pollutant Not classified as a Marine Pollutant

15. REGULATORY INFORMATION

EC Classification	Harmful	Hazard Symbol	Xn	
Dangerous to the Environment		Hazard Symbol	N	
Risk Phrases	R22 Harmful if swallowed. R36/3738 Irritating to eyes, respiratory system and skin. R43 May cause sensitisation by skin contact. R51/53 Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.			
Safety Phrases	S24 Avoid contact with skin. S25 Avoid contact with the eyes. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36 Wear suitable protective clothing. S37/39 Wear suitable gloves and eye/face protection S57 Use appropriate containment to avoid environmental contamination. S60 This material and/or its container must be disposed of as hazardous waste. S61 Avoid release to the environment. Refer to special instructions/Safety data sheet.			

16. OTHER INFORMATION

Use: Accelerator

- Benzothiazole disulphide is described by NIOSH RTECS as 'Tumorigen, Mutagen and Reproductive Effector'. This is on the basis of reported animal toxicity studies (references below)
- Listed by the International Contact Dermatitis Group for routine skin patch testing in appropriate circumstances.

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- Aniline is evolved on heating to decomposition. This chemical is highly toxic, causing methaemoglobinaemia with cyanosis.

References :

1. Environmental Mutagenesis. (New York, NY) V.1-9, 1979-87.
2. Environmental and Molecular Mutagenesis. (Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003) V.10- 1987- 11(Suppl 12),1,1988
3. Bulletin of Experimental Biology and Medicine (English Translation). Translation of BEBMAE. (Plenum Pub. Corp., 233 Spring St., New York, NY 10013) V.41- 1956-93,107,1982

HMIS rating: Health: 1
Flammability: 1
Reactivity: 0
PPI: X

Legend : 0(HMIS) Minimal hazard
1(HMIS) Slight hazard
2(HMIS) Moderate hazard
3(HMIS) Serious hazard
4(HMIS) Severe hazard
X(HMIS) Personal protective rating to be supplied by user depending on the use conditions

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