



Material Safety Data Sheet

LSFR H

Version: 1.0

Revision Date: 04/18/2013

Print Date: 12/16/2013

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: *LSFR H*

Product Use Description: Flame Retardant

Chemical nature: metal oxides

Company: Chemtura Corporation
199 Benson Road
Middlebury, CT
06749
United States of America

Telephone: (US) +1 866-430-2775

Emergency telephone number: CHEMTREC: (24 hours) 800-424-9300
:

Chemtura Corporation Emergency Response: CHEMTURA : 800-292-5898

For additional emergency telephone numbers see section 16 of the Safety Data Sheet.

Prepared by: Product Safety Department
(US) +1 866-430-2775

04/18/2013

MSDSRequest@chemtura.com

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

Form: powder

Colour: white

Hazard Summary

: Cancer hazard.
Harmful by inhalation and if swallowed.
May cause eye irritation.
May cause skin irritation.

OSHA Hazards

: COMBUSTIBLE DUST
CARCINOGEN

Potential Health Effects



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Primary Routes of Entry : Skin contact
Inhalation
Eye contact

Carcinogenicity:

IARC

Group 2B: Possibly carcinogenic to humans

diantimony trioxide 1309-64-4

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH

Suspected human carcinogen

diantimony trioxide 1309-64-4

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Component / CAS-No.	Weight percent
zinc oxide 1314-13-2	>= 30 - < 50 %
diantimony trioxide 1309-64-4	>= 30 - < 50 %
Proprietary carbonate	>= 10 - < 30 %

SECTION 4. FIRST AID MEASURES

First aid procedures

Inhalation : Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.
If symptoms persist, call a physician.

Skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.

Eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

Ingestion : Clean mouth with water and drink afterwards plenty of water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Obtain medical attention.



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SECTION 5. FIREFIGHTING MEASURES

Flammable properties

Flash point : Remarks: not applicable

Fire fighting

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Further information : Standard procedure for chemical fires.

Protective equipment and precautions for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.
Ensure adequate ventilation.

Environmental precautions : Try to prevent the material from entering drains or water courses.

Methods for containment /
Methods for cleaning up : Pick up and arrange disposal without creating dust.
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Handling

Handling procedures : Avoid formation of respirable particles.
Avoid exceeding of the given occupational exposure limits (see section 8).
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion : Avoid dust formation.
Provide appropriate exhaust ventilation at places where dust is formed.

Storage

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place.

Other data : Keep in a dry place.
No decomposition if stored and applied as directed.



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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Components with workplace control parameters

Components / CAS-No.	Value / Basis / Update	Control parameters	Further information
zinc oxide 1314-13-2	TWA ACGIH 2007-01-01	2 mg/m3	
	STEL ACGIH 2007-01-01	10 mg/m3	
	TWA OSHA Z-1 2007-01-01	15 mg/m3	
	TWA OSHA Z-1 2007-01-01	5 mg/m3	
	TWA OSHA P0 1989-01-19	10 mg/m3	
	TWA OSHA P0 1989-01-19	5 mg/m3	
	TWA OSHA Z-1 2007-01-01	5 mg/m3	
	TWA OSHA P0 1989-01-19	5 mg/m3	
	STEL OSHA P0 1989-01-19	10 mg/m3	
diantimony trioxide 1309-64-4	TWA OSHA Z-1 1997-08-04	0.5 mg/m3	



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	TWA OSHA P0 1989-01-19	0.5 mg/m3	
Proprietary carbonate	TWA OSHA Z-1 2007-01-01	15 mg/m3	
	TWA OSHA Z-1 2007-01-01	5 mg/m3	
	TWA OSHA P0 1989-01-19	15 mg/m3	
	TWA OSHA P0 1989-01-19	5 mg/m3	

Engineering measures

Engineering measures : Ensure that eyewash stations and safety showers are close to the workstation location.
Highly effective exhaust ventilation

Personal protective equipment

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles

Hand protection : Polyvinyl alcohol or nitrile- butyl-rubber gloves
Before removing gloves clean them with soap and water.

Skin and body protection : Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
When using do not eat or drink.



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When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : powder
Colour : white

Safety data

Flash point : Note: not applicable
pH : Note: not applicable
: Note: no data available
Boiling point/boiling range : Note: not applicable
Vapour pressure : not applicable
Water solubility : Note: insoluble

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : Remarks: Contamination
Materials to avoid : Remarks: Acids
Bases
Hazardous decomposition products : Note: Antimony oxide
Hazardous reactions : Dust may form explosive mixture in air.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity
zinc oxide : LD50: > 8,437 mg/kg
Species: rat
diantimony trioxide : LD50: > 34,600 mg/kg
Species: rat
Skin irritation
diantimony trioxide : Remarks: May irritate skin.



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Eye irritation
diantimony trioxide : Remarks: May irritate eyes.

12. ECOLOGICAL INFORMATION

Toxicity to fish
zinc oxide : LC50: 1.1 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)

diantimony trioxide : LC50: > 1,000 mg/l
Exposure time: 96 h
Species: Danio rerio (zebra fish)

Toxicity to daphnia and other aquatic invertebrates
diantimony trioxide : EC50: > 1,000 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

Toxicity to algae
diantimony trioxide : 67 mg/l
Exposure time: 72 h
Species: Algae

Further information on ecology

SECTION 13. DISPOSAL CONSIDERATIONS

Further information : Dispose of as hazardous waste in compliance with local and national regulations.
Dispose of wastes in an approved waste disposal facility.

SECTION 14. TRANSPORT INFORMATION

DOT

UN number : 3077
Description of the goods : Environmentally hazardous substances, solid, n.o.s.
(zinc oxide)
Class : 9
Packing group : III
ERG Code : 171

IATA

UN number : 3077



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Description of the goods : Environmentally hazardous substance, solid, n.o.s.
(zinc oxide)
Class : 9
Packing group : III
Labels : 9
Environmentally hazardous : yes

IMDG

UN number : 3077
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S.
(zinc oxide)
Class : 9
Packing group : III
EmS Number 1 : F-A
EmS Number 2 : S-F

Marine pollutant : yes
zinc oxide
Environmentally hazardous : yes
zinc oxide

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : Combustible dust, Carcinogen

**CERCLA Reportable
Quantity** : 1144 lbs

arsenic 7440-38-2 1 lbs
arsenic 7440-38-2 1 lbs

**SARA 302 Reportable
Quantity** :

SARA 311/312 Hazards : Chronic Health Hazard

EPCRA - EMERGENCY PLANNING COMMUNITY RIGHT - TO - KNOW

**SARA 302 Reportable
Quantity** :

SARA 304 Components : This material does not contain any components with a section
304 EHS RQ.

SARA 313 Components : zinc oxide 1314-13-2
diantimony trioxide 1309-64-4



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California Prop. 65 Components

: WARNING! This product contains a chemical known to the State of California to cause cancer.

diantimony trioxide

1309-64-4

diantimony trioxide

Lead

7439-92-1 lead

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Lead

7439-92-1 lead

The components of this product are reported in the following inventories:

US.TSCA

On TSCA Inventory

DSL

This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

AICS

On the inventory, or in compliance with the inventory

NZIoC

On the inventory, or in compliance with the inventory

ENCS

Not in compliance with the inventory

KECI

On the inventory, or in compliance with the inventory

PICCS

On the inventory, or in compliance with the inventory

IECSC

On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

Further information

HMIS Classification

: Health hazard: 2
Chronic Health Hazard: *
Flammability: 3
Physical hazards: 0
PPI:Ask supervisor or safety specialist for handling instructions



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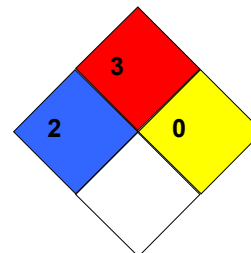
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NFPA Classification : Health hazard: 2
Fire Hazard: 3
Reactivity Hazard: 0



Other Emergency Phone Number

<u>Latin America:</u>	Brazil	+55 113 711 9144
	All other countries	+44 (0) 1235 239 670
<u>Mexico:</u>		+52 555 004 8763

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. 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.