

CELOGEN® OT

Version: 1.8
Date of Issue: 08/21/2008
Date printed: 08/21/2008

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : CELOGEN® OT

Chemical name: p-p'-oxybis(benzenesulfonylhydrazide) [OBSh]

Use of substance/preparation: Foaming Agent

Supplier: Lion Copolymer Geismar, LLC.
36191 Louisiana Highway 30
Geismar, LA 70734 USA

Emergency telephone number: CHEMTREC : 800-424-9300 (For USA, and Canada)
CHEMTREC: 703-527-3887 (For all other Countries) -
--

Environmental, Health and Safety Department: US-225-673-8871 or 225-267-3608

Prepared by Supply Chain Date of Issue: 06/24/2007
(US) +1 800-535-9960
(Outside of the US) 1 + 225-267-3788
Email: CustomerService@Lioncopolymer.com

2. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW****DANGER!**

FLAMMABLE SOLID

MAY CAUSE EYE IRRITATION.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

NONE KNOWN.

AVOID DISPERSION OF DUST IN AIR TO REDUCE POTENTIAL FOR DUST IGNITION/EXPLOSIONS.

3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	% BY WEIGHT
p-p'-Oxybis(benzenesulfonylhydrazide)[OBSh] CAS# 80-51-3	90 - 98
Distillates, petroleum, hydrotreated light naphthenic CAS# 64742-53-6	1 - 1.5
Distillates (petroleum), hydrotreated heavy naphthenic CAS# 64742-52-5	1 - 1.5

MATERIAL SAFETY DATA SHEET

CELOGEN® OT

Version: 1.8
Date of Issue: 08/21/2008
Date printed: 08/21/2008

4. FIRST AID MEASURES

Swallowing

Drink promptly a large quantity of milk, egg white or gelatin solution. If not available, drink a large quantity of water. Obtain medical attention immediately.

Inhalation

Remove to fresh air. Monitor for respiratory distress. Obtain medical attention.

Skin contact

Wash thoroughly with warm water using a mild soap.

Eye contact

Flush eyes thoroughly with water for several minutes. Obtain medical attention if discomfort persists.

5. FIRE-FIGHTING MEASURES

Flash point: 318 °F 159 °C

Flammable limits

Lower limit: Not available

Upper limit: Not available

Autoignition temperature: > 302 °F
/, Bulk quantities may self ignite if heated.

NFPA CLASSIFICATION

Health: 1	Flammability: 3	Reactivity: 2	Special provisions: No data available.
------------------	------------------------	----------------------	---

Special fire fighting procedures

DO NOT ATTEMPT MANUAL FIRE FIGHTING

Fires involving this material should be fought with fixed automatic equipment only.

Evacuate all personnel from danger area.

Avoid dusting when handling and avoid all possible sources of ignition (spark or flame).

Use water spray to cool fire-exposed containers and structures.

Fires involving large quantities of this material should not be approached, as individual containers may rupture abruptly, creating a 'fireball' effect.

Special protective equipment for firefighters

Firefighters must be equipped to prevent breathing of vapors or products of combustion. Wear an approved self-contained breathing apparatus and protective clothing.

Full protective clothing

Extinguishing media

Suitable: - water spray
- dry chemical

Unusual fire and explosion hazards

May form explosive dust-air mixtures. Once ignited, material will continue to burn, generating large volumes of gas. Use copius amounts of water to extinguish. Individual containers may explode when exposed to heat. Keep personnel at a reasonable distance from fires involving large quantities.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid all contact.

Environmental precautions

Avoid discharge to sewers or natural waters.

MATERIAL SAFETY DATA SHEET

CELOGEN® OT

Version: 1.8
Date of Issue: 08/21/2008
Date printed: 08/21/2008

Methods for cleaning up

Extinguish and do not turn on any ignition source until the area is determined to be free from fire or explosion hazards.
Vacuum up using explosion proof vacuum to avoid creating dust.
Avoid dust formation.
Eliminate sources of ignition.
Collect in a suitable container for disposal.
Dispose of waste material in compliance with all federal, provincial and local regulations.

7. HANDLING AND STORAGE

HANDLING

Handling precautions

Avoid dispersion of dust to reduce fire and explosion potential., Take precautionary measures against static discharges.

Other precautions

Limit quantity of product in processing or use area to no more than one container., Excessive heat and pressure build up should be avoided during mixing or processing.

STORAGE

Storage requirements

Keep away from heat, sparks and flame., Store in a cool, dry and well-ventilated area., Keep container tightly closed.

Further information on storage

Separate from combustible storage by 8 ft. aisles or isolate in a detached building. Do not store over 4 ft. high unless sprinklers are hydraulically designed to produce a density of 0.5 gpm/sq. ft. over the entire area., Maximum Storage Temperature:, 70°C 158°F

Further information on storage

Separate from combustible storage by 8 ft. aisles or isolate in a detached building. Do not store over 4 ft. high unless sprinklers are hydraulically designed to produce a density of 0.5 gpm/sq. ft. over the entire area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

<u>Component</u>	<u>Country</u>	<u>Type</u>	<u>Value</u>	<u>Remark</u>
p-p'-Oxybis(benzenesulfonylhydrazide)[OBS H]		ACGIH	0.1 mg/m ³	

PERSONAL PROTECTION

Respiratory protection

In case of occurrence of dust respiratory protective equipment required.

Hand protection / protective gloves

Chemical resistant protective gloves

Eye protection

Safety glasses with side shields.

Skin protection

Wear protective clothing, such as long sleeves to minimize skin contact.

ENGINEERING CONTROLS

Further information

Local exhaust ventilation is STRONGLY recommended., Any mechanical ventilation has to be explosion proof!, Do not allow dust to accumulate on equipment or building surfaces If cleaning becomes necessary, use explosion-proof /non-sparking vacuum cleaning equipment to eliminate potential ignition sources and to minimize dispersal of dust to the air. Equipment covered with dust must be wetted down with water before being disassembled for maintenance., Protect closed dust handling systems against possible dust explosions through proper grounding, venting and with sprinklers., All electrical equipment and devices must meet Class II, Div. II, Electrical motors must be Totally Enclosed Fan-Cooled (TEFC)

MATERIAL SAFETY DATA SHEET

CELOGEN® OT

Version: 1.8
Date of Issue: 08/21/2008
Date printed: 08/21/2008

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Physical state	Powder
Color	White
Odor	Characteristic
Odor threshold	No data available.

OTHER PROPERTIES

Boiling point	Not applicable
Melting point	318 °F Decomposes
Solidification	Not applicable
pH	~ 4.0
Specific gravity (H2O=1)	Not available
Density	1.53 g/cm3
Bulk density	31 lb/ft3
Vapor pressure	
Solubility in water	Insoluble
Solubility in organic solvents	Slightly soluble
Evaporation rate (Butyl Acetate=1)	Low
Partitioning coefficient	Not available
Flash point	318 °F 159 °C Decomposes
Thermal decomposition	Decomposes without ignition., Bulk quantities may self ignite if heated.
Autoignition temperature	> 302 °F /, Bulk quantities may self ignite if heated.
Upper explosion limits	Not available
Lower explosion limits	Not available
Percent volatiles	Not available
Dielectric constant	1.29

10. STABILITY AND REACTIVITY

Stability: This product is stable only when stored at, or below, the recommended maximum temperature., Becomes increasingly unstable as temperature approaches decomposition point. Slow decomposition will occur at temperatures considerably below the stated decomposition point.

SADT:

Value: 158 °F

Incompatible materials:

Ketones.

(M)SDS# 000000010834

Page: 4 of 8

MATERIAL SAFETY DATA SHEET

CELOGEN® OT

Version: 1.8
Date of Issue: 08/21/2008
Date printed: 08/21/2008

Peroxides.
Strong oxidizing agents.

Hazardous polymerization - Conditions to avoid:

Decomposition or polymerization may occur at temperatures:
>70° C (158° F)

11. TOXICOLOGICAL INFORMATION

SWALLOWING

Chronic effects

CELOGEN® OT was fed to rats for 13 weeks at concentrations up to 2,000 mg/kg. No significant effects were noted.

Test results

Acute toxicity: LD50 Rat
Result: 2,300 mg/kg

SKIN ABSORPTION

Test results

Acute toxicity: LD50 - Rabbit
Result: > 200 mg/kg

INHALATION

Test results

Acute toxicity: Remark: Not available

SKIN CONTACT

Test results

Skin irritation: Species: Rabbit
Remark: Not irritating

EYE CONTACT

Test results

Eye irritation: Species: Rabbit
Remark: May cause slight irritation.

SENSITIZATION

Test results: Remark: No data available.

MUTAGENICITY

Genetic toxicity in vitro: Test type: Unscheduled DNA synthesis (UDS)
Result: Negative

Assessment: Ames Salmonella: Positive / CHO-HGPRT: Negative

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

MATERIAL SAFETY DATA SHEET

CELOGEN® OT

Version: 1.8
Date of Issue: 08/21/2008
Date printed: 08/21/2008

General: Dispose of in accordance with appropriate Federal, State, and local regulations., Avoid discharge to sewers and natural waters.

Non-cleaned packages

Do not cut or weld on or near any container. Do not pressurize drums., DO NOT REUSE CONTAINER!

US waste

In accordance with EPA/RCRA 40 CFR261.21 (a) (2) Ignitability, D001.

14. TRANSPORT INFORMATION

DOT Classification

Proper shipping name: Self-reactive solid Type D diphenyloxide 4,4'-disulfonylhydrazide or p-p'-Oxybis(benzenesulfonylhydrazide)
Class: 4.1
UN ID #: UN3226
Packing group: II
Technical description p-p'-Oxybis(benzenesulfonylhydrazide)[OBSh]

IMDG Classification

Proper shipping name: Self-reactive solid Type D
Class: 4.1
UN ID #: UN 3226
Packing group: II
Technical description p-p'-Oxybis(benzenesulfonylhydrazide)[OBSh]

ICAO Classification

Proper shipping name: Self-reactive solid Type D
Class: 4.1
UN ID #: UN 3226
Packing group: II
Technical description p-p'-Oxybis(benzenesulfonylhydrazide)[OBSh]

15. REGULATORY INFORMATION

Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of hazardous substances equal to or greater than the reportable quantities (RQ's) in 40CFR302.4.

Components present in this product at a level which could require reporting under the statute are:

**** NONE ****

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40CFR372 (for SARA 313). This information must be included in MSDS's that are copied and distributed for this material.

Components present in this product at a level which could require reporting under the statute are:

**** NONE ****

Massachusetts Right-To-Know Substance List (MSL)--Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products.

Components present in this product at a level which could require reporting under the statute are:

Chemical name	CAS#	Max weight %
Distillates, petroleum, hydrotreated light naphthenic	64742-53-6	<= 1.50

Pennsylvania Right-To-Know Hazardous Substance List--Hazardous Substances and Special Hazardous Substances on the list must be identified when present in products.

Components present in this product at a level which could require reporting under the statute are:

Chemical name	CAS#	Max weight %
Distillates, petroleum, hydrotreated light naphthenic	64742-53-6	>=1.00 - <= 1.50

MATERIAL SAFETY DATA SHEET

CELOGEN® OT

Version: 1.8
Date of Issue: 08/21/2008
Date printed: 08/21/2008

Distillates (petroleum), hydrotreated heavy naphthenic 64742-52-5 ≥ 1.00 - ≤ 1.50

New Jersey Worker and Community Right-To-Know Act (Labeling Requirements)

Chemical name	CAS#	New Jersey TS Number
Distillates, petroleum, hydrotreated light naphthenic	64742-53-6	
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	
p-p'-Oxybis(benzenesulfonylhydrazide)[OBSH]	80-51-3	

EPA Hazard Categories (SARA 311, 312): Immediate Health Hazard

California Proposition 65

*** NONE ***

CHEMICAL INVENTORY

Canada:	This product is on the DSL.
Europe:	The ingredients of this mixture are on the EINECS inventory.
United States:	This product is on the TSCA inventory.
USA:	This product is on the AICS inventory.
China:	This product is on the IECSC Inventory.
Japan:	This product is not on the ENCS inventory.
Korea:	This product is listed on the Existing Chemicals List (ECL).
Philippines:	This product is on the PICCS.

Food additive
No data available.

Food contact
This product has numerous FDA clearances. Please contact the Supply Chain Department of Lion Copolymer Geismar, LLC. for details.

Cosmetics
No data available.

Pharmaceuticals
No data available.

16. OTHER INFORMATION

HMIS RATING

Health: 1	Flammability: 3	Reactivity: 2	PPI: X
------------------	------------------------	----------------------	---------------

STP	Standard temperature and pressure
W/W	Weight/Weight 0 (HMIS)
1 (HMIS)	Slight hazard
2 (HMIS)	Moderate hazard
3 (HMIS)	Serious hazard
4 (HMIS)	Severe hazard
X (HMIS)	Personal protection rating to be supplied by user depending on use conditions

Copyright
2008

THE OPINIONS EXPRESSED HEREIN ARE THOSE OF QUALIFIED EXPERTS WITHIN LION COPOLYMER GEISMAR, LLC.. WE BELIEVE THAT THE INFORMATION CONTAINED

MATERIAL SAFETY DATA SHEET

CELOGEN® OT

<u>Version:</u>	1.8
<u>Date of Issue:</u>	08/21/2008
<u>Date printed:</u>	08/21/2008

HEREIN IS CURRENT AS OF THE DATE OF THIS SAFETY DATA SHEET. SINCE THE USE OF THIS INFORMATION AND OF THESE OPINIONS AND THE CONDITIONS OF USE OF THIS PRODUCT ARE NOT WITHIN THE CONTROL OF LION COPOLYMER GEISMAR, LLC., IT IS THE USER'S OBLIGATION TO DETERMINE THE CONDITIONS OF SAFE USE OF THE PRODUCTS.