

Product name: CELOGEN® OT

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: CELOGEN® OT**Chemical name:** p-p'-oxybis(benzenesulphonylhydrazide)[OBSH] or Diphenyloxide-4,4'-disulphonylhydrazide (oil treated)**Supplier:** Crompton Corporation
199 Benson Road
Middlebury, CT 06749, USA**Emergency telephone number:** CHEMTREC (24 hours) 800-424-9300
Crompton Corporation Emergency Response (24 hours)
800-292-5898**For MSDS, Product Safety, or regulatory inquiries, call:** 866-430-2775

2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS#	CONCENTRATION
p-p'-oxybis(benzenesulphonylhydrazide)[OBSH]	80-51-3	90.0 - 98.0 %
Refined Petroleum Distillate	64742-53-6	1.0 - 1.5 %
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	1.0 - 1.5 %

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW**DANGER!**
FLAMMABLE SOLIDMAY CAUSE EYE IRRITATION.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
NONE KNOWN.
AVOID DISPERSION OF DUST IN AIR TO REDUCE POTENTIAL FOR DUST IGNITION/EXPLOSIONS.

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.

SkinMARKETED BY
**HARWICK STANDARD
DISTRIBUTION CORPORATION**

60 S. Seiberling Street • Akron, Ohio 44305

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Wash thoroughly with warm water using a mild soap.

Inhalation

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

Eye contact

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

5. FIRE-FIGHTING MEASURES

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.
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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
- foam

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.

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Environmental precautions

Avoid discharge to sewers or natural waters.

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 an explosion proof or non-sparking vacuum cleaner to avoid creating dust.

Avoid dispersion of dust.

Collect in a suitable container for disposal.

Dispose of waste material in compliance with all federal, state, 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.

Use only in well ventilated areas.

Eliminate static electricity by proper procedures and by effective grounding.

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

Maximum Storage Temperature: 70°C 158°F

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

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.

Product name: CELOGEN® OT**ENGINEERING CONTROLS****Ventilation**

Local exhaust suggested to prevent dust buildup.

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.

All electrical equipment and devices must meet Class II, Div. II

Electrical motors must be Totally Enclosed Fan-Cooled (TEFC)

EXPOSURE LIMITS

<u>Component</u>	<u>Type</u>	<u>Value</u>	<u>Remark</u>
p-p'-oxybis(benzenesulphonylhydrazide)[OBSH]	ACGIH	0.1 mg/m ³	
<u>Component</u> Refined Petroleum Distillate	<u>Type</u> TWA (mist), ACGIH	<u>Value</u> 5.0 mg/m ³	If used in way that generates a "mist" observe the limits for Mineral Oil Mist.
	TWA, OSHA	1,600.0 mg/m ³ 400.0 ppm	
<u>Component</u> Distillates (petroleum), hydrotreated heavy naphthenic	<u>Type</u> TLV-TWA, ACGIH	<u>Value</u> 5.0 mg/m ³	Permissible Concentrations in air for oil mist.
	PEL, OSHA	2,000.0 mg/m ³ 500.0 ppm	

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	159 °C (318 °F) at STP unless specified below. Decomposes
Solidification	Not applicable.

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pH	~ 4.0
Density	1.53 g/cm ³
Bulk density	31 lb/ft ³
Vapor pressure	Not applicable.
Vapor density (air=1)	Not applicable.
Solubility in water	Insoluble
Solubility in organic solvents	Slightly soluble
Evaporation rate (Butyl Acetate=1)	Low
Partitioning coefficient	Not determined
Flash point	Method: Not applicable. Decomposes: 318°F
Autoignition temperature	> 302 °F /, Bulk quantities may self ignite if heated.
Upper explosion limits	Not available
Lower explosion limits	Not available
Dielectric constant	1.29

10. STABILITY AND REACTIVITY

Stability: Becomes increasingly unstable as temperature approaches decomposition point. Slow decomposition will occur at temperatures considerably below the stated decomposition point.

Stability - Conditions to avoid

Avoid temperatures:

>70° C (158° F)

Incompatible materials

Strong oxidizing agents.

Peroxides.

Ketones.

Hazardous polymerization - Conditions to avoid

Decomposition or polymerization may occur at temperatures:

>70° C (158° F)

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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 determined

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

Genetic toxicity in vivo: Test type: Micronucleus test (mouse): negative.

Assessment

Ames Salmonella: Positive / CHO-HGPRT: Negative



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12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

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

Class: 4.1

UN ID #: UN3226

IMDG Classification

Proper shipping name: Self-reactive solid Type D

Class: 4.1

UN ID #: UN 3226

ICAO Classification

Proper shipping name: Self-reactive solid Type D

Class: 4.1

UN ID #: UN 3226

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:



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Refined Petroleum Distillate	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 %
Refined Petroleum Distillate	64742-53-6	>=1.00 - <= 1.50
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
Refined Petroleum Distillate	64742-53-6	
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	
p-p'-oxybis(benzenesulphonylhydrazide)[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.

Australia: This product is on the AICS inventory.

China: This product is on the IECSC Inventory.

Japan: This product is on the ENCS inventory.

Korea: This product is listed on the Existing Chemicals List (ECL).

Philippines: This product is on the PICCS.

FDA

Food additive
No data available.

Food contact
21CFR177.2600 Rubber Articles Intended for repeated uses Not to exceed 5 wt% of composition 21CFR177.1210 Closures with Sealing gaskets for Food containers Additives not to exceed 0.5 wt% of gasket composition 21CFR175.300 Resinous and Polymeric Coatings Additives not to exceed 0.5 wt% of composition in can end cements.

Cosmetics



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No data available.

Pharmaceuticals

No data available.

16. OTHER INFORMATION

FURTHER INFORMATION

MAY BE ON THE INVENTORY LIST BUT NOT NECESSARILY REGISTERED, (Korea, China, New Zealand)
CONSULT REGULATORY SPECIALIST.

HMIS RATING

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

STP	Standard temperature and pressure
W/W	Weight/Weight
0 (HMIS)	Minimal hazard
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

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