

MATERIAL SAFETY DATA SHEET

CELOGEN® TSH

Version: 1
Date of Issue: 02/12/2013
Date printed: 02/15/2013

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: CELOGEN® TSH

Chemical name: p-Toluenesulfonyl hydrazide [pTSH]

Use of substance / preparation: Foaming Agent

Supplier: CelChem LLC
6519 Carema Lane
Naples, FL 34113-1709

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

Contact: + (239) 228-2285
Email: CustomerService@CelChemllc.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

OSHA Hazards

Flammable solid, Toxic by ingestion

GHS Classification

Self-reactive substances (Type D) Acute toxicity,
Oral (Category 3) Eye irritation (Category 2B)

GHS Label elements, including precautionary statements



Pictogram

Signal word

Danger

Hazard statement(s)

H242 Heating may cause a fire.
H301 Toxic if swallowed.
H320 Causes eye irritation.

Precautionary statement(s)

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

HMIS Classification

Health hazard: 2
Flammability: 2
Physical hazards: 3

NFPA Rating

Health hazard: 2
Fire: 2
Reactivity Hazard: 3

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Ingestion Toxic if swallowed.

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3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT:

Toluene-4-sulphonohydrazide

CAS-No. 1576-35-8

EC-No. 216-407-3

Synonyms: p-Toluenesulfonhydrazide
p-Toluenesulfonic acid hydrazide To
sylhydrazide
p-Toluenesulfonyl hydrazide

Formula: $C_7H_{10}N_2O_2S$

Molecular Weight: 186.23 g/mol

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Sulfur oxides

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

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7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition.

Conditions for safe storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100

(US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. 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. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Immersion Protection Material:

Nitrile rubber

Minimum layer thickness: 0.11 mm Break through

time: > 480 min

Material tested: Dermatril®

Splash Protection

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through

time: > 30 min

Material tested: Dermatril®

Eye 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).

Skin and body 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.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	crystalline
Color	beige

Safety data

pH	no data available
Melting point/freezing point	Melting point/range: 103 - 108 °C (217 - 226 °F) - lit.
Boiling point	no data available
Flash point	60 °C (140 °F)
Ignition temperature	no data available
Auto ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapor pressure	no data available
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapor density	no data available
Odor	no data available
Odor Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Sulfur oxides
Other decomposition products - no data available

Thermal decomposition

Type D

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11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50

LD50 Oral - rat - 283 mg/kg

Remarks: Behavioral: Somnolence (general depressed activity). Behavioral: Convulsions or effect on seizure threshold.

Inhalation LC50 no data available

Dermal LD50 no data available

Other information on acute toxicity no data available

Skin corrosion/irritation no data available

Serious eye damage/eye irritation no data available

Respiratory or skin sensitization no data available

Germ cell mutagenicity no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

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.

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.

Reproductive toxicity no data available

Teratogenicity no data available

Specific target organ toxicity - single exposure (Globally Harmonized System) no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System) no data available

Aspiration hazard no data available

Potential health effects:

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion Toxic if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects

no data available

Additional Information

RTECS: MW0210000

12. ECOLOGICAL INFORMATION

Toxicity no data available

Persistence and degradability no data available

Bio accumulative potential no data available

Mobility in soil no data available

PBT and vPvB assessment no data available

Other adverse effects no data available

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13. DISPOSAL CONSIDERATIONS

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product

14. TRANSPORT INFORMATION

DOT (US)

UN number: 3226
Class: 4.1
Packing group: II
Proper shipping name: Self-reactive solid type D (4-Methylbenzenesulphonylhydrazide)
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

UN number: 3226
Class: 4.1
EMS-No: F-J, S-G
Proper shipping name: Self-reactive solid type D (4-methylbenzenesulphonylhydrazide)
Marine pollutant: No

IATA

UN number: 3226
Class: 4.1 (HEAT)
Proper shipping name: Self-reactive solid type D (4-Methylbenzenesulphonylhydrazide)

15. REGULATORY INFORMATION

OSHA Hazards

Flammable solid, Toxic by ingestion

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components

Toluene-4-sulphonohydrazide

CAS

1576-35-8

New Jersey Right to Know Components

Toluene-4-sulphonohydrazide

1576-35-8

California Proposition 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

The opinions expressed herein are those of qualified experts within CelChem LLC. We believe that the information contained 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 CelChem LLC, it is the user's obligation to determine the conditions of safe use of the products.