

1. PRODUCT AND COMPANY IDENTIFICATION

Company

Odor-Tech, LLC.
7591 Esler Field Road
Pineville, LA 71360

Thio and Fine Chemicals

Customer Service Telephone Number: (800) 628-4453
(Monday through Friday, 8:30 AM to 5:30 PM EST)

Emergency Information

Transportation: CHEMTREC: (800) 424-9300
(24 hrs., 7 days a week)
Medical: Rocky Mountain Poison Center: (866) 767-5089
(24 hrs., 7 days a week)

Product Information

Product name: SPOTLEAK® 1039
Synonyms: Not available
Molecular formula: Mixture
Chemical family: mercaptans
Product use: Odour agents

2. HAZARDS IDENTIFICATION

Emergency Overview

Color: Colourless to yellow.
Physical state: liquid
Odor: pungent

DANGER!
EXTREMELY FLAMMABLE LIQUID AND VAPOR.
VAPOR MAY CAUSE FLASH FIRE.
HARMFUL OR FATAL IF SWALLOWED.
CAN ENTER LUNGS AND CAUSE DAMAGE.
CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION.
MAY CAUSE ALLERGIC SKIN REACTION.
VAPOR REDUCES OXYGEN AVAILABLE FOR BREATHING AND IS HEAVIER THAN AIR.
OBJECTIONABLE ODOR MAY CAUSE NAUSEA, HEADACHE OR DIZZINESS.

Potential Health Effects

Primary routes of exposure:
Inhalation and skin contact.

Signs and symptoms of acute exposure:

Liquid: Aspiration hazard if swallowed - can enter lungs and cause damage. Symptoms of aspiration may include increased breathing and heart rate, coughing and related signs of respiratory distress. Liquid, vapor or mist: Irritating to eyes, respiratory system and skin. Objectionable odor may cause nausea, headache or dizziness. Vapor is heavier

than air and can cause suffocation by reducing oxygen available for breathing. Prolonged or repeated skin contact may cause: Allergic skin reaction: redness, rash.

Skin:

No more than slightly toxic. Severely irritating. May cause allergic skin reaction. (based on components)

Inhalation:

Practically nontoxic. Irritating. (vapor) (based on components)

Eyes:

Moderately to severely irritating. (based on components)

Ingestion:

Slightly toxic. (based on components)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Wt/Wt	OSHA Hazardous
2-Propanethiol, 2-methyl-	75-66-1	50 %	Y
Thiophene, tetrahydro-	110-01-0	50 %	Y

This material is classified as hazardous under Federal OSHA regulation.

The substance(s) marked with a "Y" in the Hazard column above, are those identified as hazardous chemicals under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

4. FIRST AID MEASURES

Inhalation:

If inhaled, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Skin:

In case of contact, immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Ingestion:

If swallowed, DO NOT induce vomiting. Call a physician or Poison Control Center immediately. If vomiting occurs, have person lean forward. Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

Flash point 3 °F (-16 °C) (Tag closed cup)

Auto-ignition temperature: 455 °F (235 °C) (Method: Standard NF T 60 118)

Lower flammable limit (LFL): 1.1 %(V) (data for Thiophene, tetrahydro- (110-01-0))

Upper flammable limit (UFL): 12.1 %(V) (data for Thiophene, tetrahydro- (110-01-0))

Extinguishing media (suitable):
Dry chemical, carbon dioxide, foam

Extinguishing media (unsuitable):
High volume water jet

Protective equipment:
Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand / NIOSH approved or equivalent).

Further firefighting advice:
Water may be ineffective.
Keep containers and surroundings cool with water spray.
Fire fighting equipment should be thoroughly decontaminated after use.
Closed containers of this material may explode when subjected to heat from surrounding fire.
Do not use a solid water stream as it may scatter and spread fire.
Do not allow run-off from fire fighting to enter drains or water courses.

Fire and explosion hazards:
Vapours may form explosive mixture with air.
Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, and other flames and ignition sources at locations distant from material handling point.
When burned, the following hazardous products of combustion can occur:
Carbon oxides
sulfur oxides
hydrogen sulfide

6. ACCIDENTAL RELEASE MEASURES

In case of spill or leak:
Prevent further leakage or spillage if you can do so without risk. Evacuate area of all unnecessary personnel. Ventilate the area. Eliminate all ignition sources. Avoid generation of vapors. Contain and collect spillage with non-combustible absorbent material such as sodium bicarbonate, sodium carbonate, calcium carbonate, clean sand or non-acidic clay and then wet down (dampen) the mixture with water. Sweep or scoop up using non-sparking tools and place into suitable properly labeled containers for prompt disposal. The sweepings should be wetted down further with water. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

7. HANDLING AND STORAGE

Handling

General information on handling:

Keep away from heat, sparks and flames.
Do not taste or swallow.
Avoid breathing vapor or mist.
Avoid contact with the skin, eyes and clothing.
Keep container closed.
Use only with adequate ventilation.
Do not enter confined spaces unless adequately ventilated.
Wash thoroughly after handling.
Check that all equipment is properly grounded and installed to satisfy electrical classification requirements.
Container hazardous when empty.
Emptied container retains vapor and product residue.
Follow label warnings even after container is emptied.
RESIDUAL VAPORS MAY EXPLODE ON IGNITION.
DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER.
Improper disposal or reuse of this container may be dangerous and/or illegal.

Storage

General information on storage conditions:

Store in cool, dry, well ventilated area away from sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly grounded and installed to satisfy electrical classification requirements. Static electricity may accumulate when transferring material. All metal and groundable storage containers, including but not limited to drums, cylinders, Returnable Intermodal Bulk Containers (RIBCs) and Class C Flexible Intermodal Bulk Containers (FIBCs) must be bonded and grounded during filling and emptying operations. This product should be stored in a closed container, away from direct sunlight, at ambient temperatures. Observe all federal, state and local regulations and National Fire Protection Association (NFPA) Codes which pertain to the specific local conditions of storage and use, including OSHA 29 CFR 1910.106 and NFPA 30, 70, 77, and 497.

Storage incompatibility – General:

Store separate from: Strong oxidizing agents

Acids (concentrated solutions)

Bases

Alkali metals

Reducing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne Exposure Guidelines:

Engineering controls:

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at

sources of air contamination such as open process equipment.

Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Respiratory protection:

Avoid breathing vapor or mist. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Skin protection:

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. When handling this material, gloves of the following type(s) should be worn: Nitrile rubber

Wear chemical goggles, a face shield, and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Remove contaminated clothing immediately and wash before reuse. Clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash thoroughly after handling.

Eye protection:

Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment immediately available.

9. PHYSICAL AND CHEMICAL PROPERTIES
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Color:	Colourless to yellow.
Physical state:	liquid
Odor:	pungent
Odor threshold:	approx. 0.1 ppb
pH:	not determined
Density:	896 kg/m ³ (68 °F (20 °C))
Specific Gravity (Relative density):	0.896 (68 °F (20 °C)) _{Water=1} (liquid)
Bulk density:	not determined
Vapor pressure:	59 mmHg (59 °F (15 °C)) calculated 89 mmHg (68 °F (20 °C))
Relative vapor density:	approximately 3.1 (Air = 1.0)
Vapor density:	3.1 kg/m ³ (68 °F (20 °C))

Boiling point/boiling range:	162 °F (72 °C)
Freezing point:	< -51 °F (< -46 °C)
Melting point/range:	< 32 °F (< 0 °C)
Solubility in water:	negligible
Solubility in other solvents: [qualitative and quantitative]	Soluble in: Ethyl ether Alcohol Hydrocarbons
Refractive index:	1.463 68 °F (20 °C)
Viscosity, dynamic:	0.835 mPa.s 68 °F (20 °C)
Thermal decomposition	842 °F (450 °C)

10. STABILITY AND REACTIVITY

Stability:

This material is chemically stable under normal and anticipated storage, handling and processing conditions.

Materials to avoid:

- Reacts violently with :
Strong oxidizing agents
Release of : sulphur dioxide
Acids
Bases
Reducing agents
Alkali metals

Conditions / hazards to avoid:

Keep away from heat and sources of ignition. To avoid thermal decomposition, do not overheat.

Hazardous decomposition products:

Thermal decomposition giving flammable and toxic products
Carbon oxides
sulfur oxides
hydrogen sulfide

11. TOXICOLOGICAL INFORMATION

Data on this material and/or its components are summarized below.

Data for 2-Propanethiol, 2-methyl- (75-66-1)

Acute toxicity

Oral:

Slightly toxic. (rat) LD50 = 4,729 mg/kg.

Dermal:

No more than slightly toxic. (rabbit) LD50 > 2,000 mg/kg.

Inhalation:

Practically nontoxic. (rat) 4 h LC50 = 97.5 mg/l.

Skin Irritation:

Non-irritating. (rabbit) (4 h)

Eye Irritation:

Slightly irritating. (rabbit)

Skin Sensitization:

Repeated skin exposure. (guinea pig) Skin allergy was observed.

Repeated dose toxicity

Repeated inhalation administration to rat / affected organ(s): kidney / signs: inflammation, degeneration

Genotoxicity

Assessment in Vitro:

No genetic changes were observed in laboratory tests using: bacteria, animal cells

Genotoxicity

Assessment in Vivo:

No genetic changes were observed in laboratory tests using: mice

Developmental toxicity

Exposure during pregnancy. inhalation (rat and mouse) / No birth defects were observed.

Other information

Aspiration hazard

Data for Thiophene, tetrahydro- (110-01-0)

Acute toxicity

Oral:

Slightly toxic. (rat) LD50 = 1,850 mg/kg.

Dermal:

No more than slightly toxic. (rat) LD50 > 2,000 mg/kg.

Inhalation:

Practically nontoxic. (rat) 4 h LC50 = 22.6 mg/l.

Skin Irritation:

Severely irritating to corrosive. (rabbit) (4 h)

Eye Irritation:

Severely irritating. (rabbit)

Skin Sensitization:

Not a skin sensitizer. Guinea pig maximization test. (guinea pig) No skin allergy was observed

Repeated dose toxicity

Repeated exposure by inhalation administration to rat / affected organ(s): blood, upper respiratory tract / signs: changes in blood cell counts, respiratory irritation

Genotoxicity

Assessment in Vitro:

No genetic changes were observed in laboratory tests using: bacteria, animal cells, human cells

Developmental toxicity

Exposure during pregnancy. inhalation (rat) / No birth defects were observed. (at doses that produce effects in mothers)

Other information

Aspiration hazard

12. ECOLOGICAL INFORMATION

Chemical Fate and Pathway

Data on this material and/or its components are summarized below.

Data for Thiophene, tetrahydro- (110-01-0)

Biodegradation:

Not readily biodegradable. (28 d) < 10 % / OECD Guideline 301 F

Octanol Water Partition Coefficient:

log Pow 1.8 (calculated)

Ecotoxicology

Data on this material and/or its components are summarized below.

Data for 2-Propanethiol, 2-methyl- (75-66-1)

Aquatic toxicity data:

Slightly toxic. Oncorhynchus mykiss (rainbow trout) 96 h LC50 = 34 mg/l

Aquatic invertebrates:

Moderately toxic. Daphnia magna (Water flea) 48 h EC50 = 6.7 mg/l

Algae:

Slightly toxic. Pseudokirchneriella subcapitata 72 h EC50 (growth rate) = 24 mg/l

Data for Thiophene, tetrahydro- (110-01-0)

Aquatic toxicity data:

No more than slightly toxic. Danio rerio (zebra fish) 96 h LC50 > 60 mg/l

Aquatic invertebrates:

No more than slightly toxic. Daphnia magna (Water flea) 48 h EC50 > 24 mg/l

Algae:

Slightly toxic. Pseudokirchneriella subcapitata 72 h EC50 = 90 mg/l

Microorganisms:

Practically nontoxic. Respiration inhibition / Activated sludge 3 h EC50 = 1,530 mg/l

13. DISPOSAL CONSIDERATIONS

Waste disposal:

Disposal via incineration is recommended. Dispose of in accordance with federal, state and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

14. TRANSPORT INFORMATION

US Department of Transportation (DOT)

UN Number : 3336
 Proper shipping name : Mercaptan mixture, liquid, flammable, n.o.s.
 Technical name : (tert-Butylmercaptan, Tetrahydrothiophene)
 Class : 3
 Packaging group : II
 Marine pollutant : yes

International Maritime Dangerous Goods Code (IMDG)

UN Number : 3336
 Proper shipping name : MERCAPTANS, LIQUID, FLAMMABLE, N.O.S.
 Technical name : (t-BUTYLMERCAPTAN, TETRAHYDROTHIOPHENE)
 Class : 3
 Packaging group : II
 Marine pollutant : yes
 Flash point : 3 °F (-16 °C) Tag closed cup

15. REGULATORY INFORMATION

Chemical Inventory Status

EU. EINECS	EINECS	Conforms to
US. Toxic Substances Control Act	TSCA	The components of this product are all on the TSCA Inventory.

Australia. Industrial Chemical (Notification and Assessment) Act	AICS	Conforms to
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 144)	DSL	All components of this product are on the Canadian DSL list.
Japan. Kashin-Hou Law List	ENCS (JP)	Conforms to
Korea. Existing Chemicals Inventory (KECI)	KECI (KR)	Conforms to
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	PICCS (PH)	Conforms to
China. Inventory of Existing Chemical Substances	IECSC (CN)	Conforms to
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	NZIOC	Conforms to

United States – Federal Regulations

SARA Title III – Section 302 Extremely Hazardous Chemicals:

The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.

SARA Title III - Section 311/312 Hazard Categories:

Acute Health Hazard, Fire Hazard

SARA Title III – Section 313 Toxic Chemicals:

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.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantity (RQ):

The components in this product are either not CERCLA regulated, regulated but present in negligible concentrations, or regulated with no assigned reportable quantity.

OSHA Regulated Carcinogens (NTP, IARC, OSHA Listed):

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.

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.

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.

United States – State Regulations

New Jersey Right to Know

<u>Chemical Name</u>	<u>CAS-No.</u>
Thiophene, tetrahydro-	110-01-0

Pennsylvania Right to Know

<u>Chemical Name</u>	<u>CAS-No.</u>
Benzene	71-43-2
Thiophene, tetrahydro-	110-01-0
2-Propanethiol, 2-methyl-	75-66-1

Pennsylvania Right to Know – Environmentally Hazardous Substance(s)

<u>Chemical Name</u>	<u>CAS-No.</u>
Benzene	71-43-2

Pennsylvania Right to Know – Special Hazardous Substance(s)

<u>Chemical Name</u>	<u>CAS-No.</u>
Benzene	71-43-2

California Prop. 65

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

<u>Chemical Name</u>	<u>CAS-No.</u>
Benzene	71-43-2

California Prop. 65

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

<u>Chemical Name</u>	<u>CAS-No.</u>
Benzene	71-43-2

16. OTHER INFORMATION

Miscellaneous:

Other information: Refer to National Fire Protection Association (NFPA) Codes 30, 70, 77, and 497 and OSHA 29 CFR 1910.106, for safe handling.

Latest Revision(s):

Revised Section(s): Revised all sections.
Reference number: 000000035533
Date of Revision: 09/20/2011
Date Printed: 09/20/2011

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