SPOTLEAK® 1009

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® 1009
Synonyms: Not available
Molecular formula: Not available
Chemical family: mercaptans
Molecular weight: 88.16 g/mol
Product use: Odour agents

2. HAZARDS IDENTIFICATION

Emergency Overview

Color: clear
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.
MAY CAUSE ALLERGIC SKIN REACTION.
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:
Objectionable odor may cause nausea, headache or dizziness. Prolonged or repeated skin contact may cause: Allergic skin reaction: redness, rash. 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.

Skin:
No more than slightly toxic. Non-irritating. (based on animal studies) May cause allergic skin reaction. (based on components)

Inhalation:
Practically nontoxic. (based on animal studies)

Eyes:
Practically non-irritating. (based on animal studies)

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	> 70 - < 80 %	Y
2-Propanethiol	75-33-2	> 10 - < 30 %	Y
1-Propanethiol	107-03-9	> 2 - < 5 %	Y

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).

This material is classified as hazardous under Federal OSHA regulation.

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 if symptoms occur. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes:
Immediately flush eye(s) with plenty of water.

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 < 0.01 °F (< -17.77 °C) (Tag closed cup)

Auto-ignition temperature: 473 °F (245 °C)

Lower flammable limit (LFL): 1.1 %(V)

Upper flammable limit (UFL): 12.1 %(V)

Extinguishing media (suitable):
Water spray, Carbon dioxide (CO2), Foam, Dry chemical

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.
Do not allow run-off from fire fighting to enter drains or water courses.

Fire and explosion hazards:
Vapors may spread long distances and ignite.
When burned, the following hazardous products of combustion can occur:
Carbon oxides
hydrogen sulfide
sulfur oxides

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 prolonged or repeated contact with skin.
Keep container closed.
Use only with adequate ventilation.
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 well ventilated area away from heat and 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)

Alkaline earth metals

Bases

Reducing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne Exposure Guidelines:

Engineering controls:
Investigate engineering techniques to reduce exposures.Provide ventilation if necessary to minimize exposures.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 recommended). 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. Consult glove manufacturer to determine appropriate type glove material for given application. Wear face shield and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Wash contaminated clothing and clean protective equipment before reuse. Wash thoroughly after handling.

Eye protection:
Use good industrial practice to avoid eye contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	clear
Physical state:	liquid
Odor:	pungent
Odor threshold:	0.1 ppb
pH:	not determined
Density:	not determined
Specific Gravity (Relative density):	0.812 (59.9 °F(15.5 °C))
Bulk density:	not determined
Vapor pressure:	341 mmHg (32 °F (0 °C))
Relative vapor density:	3.04
Vapor density:	3 kg/m3
Boiling point/boiling range:	144 °F (62 °C)
Freezing point:	< -49.99 °F (< -45.55 °C)
Evaporation rate:	not determined

Solubility in water:	68 °F (20 °C) insoluble
Solubility in other solvents: [qualitative and quantative]	Soluble in: Alcohols
	Ethyl ether
Refractive index:	1.425
Viscosity, dynamic:	0.57 mPa.s 68 °F (20 °C)
% Volatiles:	100 %
Molecular weight:	88.16 g/mol
Critical point:	Critical pressure: 41853 mmHg Critical temperature: 583 °F (306 °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
Acids
Bases
Reducing agents
Alkaline earth metals
Release of : sulphur dioxide

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 SPOTLEAK® 1009

Acute toxicity

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

Inhalation:
Practically nontoxic. (rat) 4 h LC50 > 5.3 mg/l. (vapor)

Skin Irritation:
Non-irritating. (rabbit)

Eye Irritation:
Practically non-irritating. (rabbit)

Other information
Aspiration hazard

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

Acute toxicity

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

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 2-Propanethiol (75-33-2)

Acute toxicity

Oral:
Slightly toxic. (rat) LD50 between 2,000 - 5,000 mg/kg.

Genotoxicity

Assessment in Vitro:
No genetic changes were observed in laboratory tests using: animal cells, bacteria, (data for a similar

material)

Genotoxicity

Assessment in Vivo:
No genetic changes were observed in laboratory tests using: mice, (data for similar material)

Developmental toxicity
Exposure during pregnancy. inhalation (rat) / No birth defects were observed. (data for a similar material)

Reproductive effects
Reproduction test. oral (rat) / No toxicity to reproduction / (data for a similar material)

Other information
Aspiration hazard

Human experience
Inhalation:
Systemic effects: headache, nausea, unconsciousness, cyanosis, breathing difficulties, rapid heart beat. (vapor) (repeated or prolonged exposure)

Data for 1-Propanethiol (107-03-9)

Acute toxicity

Oral:
Slightly toxic. (rat) LD50 = 1,848 mg/kg.

Other information
Aspiration hazard

12. ECOLOGICAL INFORMATION

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

Data for 2-Propanethiol (75-33-2)

Biodegradation:
Not readily biodegradable. (28 d) biodegradation 0 %

Data for 1-Propanethiol (107-03-9)

Biodegradation:
Readily biodegradable (Closed Bottle test, 14 d) biodegradation 94 % / OECD Guideline 301 D

Octanol Water Partition Coefficient:
log Pow = 1.81 (measured)

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 2-Propanethiol (75-33-2)

Aquatic toxicity data:
Slightly toxic. Oncorhynchus mykiss (rainbow trout) 96 h LC50 = 34 mg/l (data for a similar material)

Aquatic invertebrates:
Highly toxic. Daphnia magna (Water flea) 48 h EC50 0.25 - 0.5 mg/l

Algae:
Slightly toxic. Pseudokirchneriella subcapitata (green algae) 72 h = 24 mg/l (data for a similar material)

Microorganisms:
Practically nontoxic Activated sludge 3 h EC50 = 880.5 mg/l

Data for 1-Propanethiol (107-03-9)

Aquatic toxicity data:
Moderately toxic. Pimephales promelas (fathead minnow) 96 h LC50 = 1.3 mg/l

Aquatic invertebrates:
Highly toxic. Daphnia magna (Water flea) 48 h EC50 = 0.07 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, Isopropyl mercaptan)
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, PROPANETHIOLS)
Class	:	3
Packaging group	:	II
Marine pollutant	:	yes
Flash point	:	< 0.01 °F (< -17.77 °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):

Chemical Name	CAS-No.	Reportable quantity
Benzene	71-43-2	10 lbs

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

Chemical Name	CAS-No.
2-Propanethiol	75-33-2

Pennsylvania Right to Know

Chemical Name	CAS-No.
Benzene	71-43-2
2-Propanethiol	75-33-2
2-Propanethiol, 2-methyl-	75-66-1

Pennsylvania Right to Know – Environmentally Hazardous Substance(s)

Chemical Name	CAS-No.
Benzene	71-43-2

Pennsylvania Right to Know – Special Hazardous Substance(s)

Chemical Name	CAS-No.
Benzene	71-43-2

California Prop. 65
WARNING! This product contains a chemical known to the State of California to cause cancer.

Chemical Name	CAS-No.
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.

Chemical Name	CAS-No.
Benzene	71-43-2

16. OTHER INFORMATION

Latest Revision(s):

Revised Section(s):	Updated Corporate Address Change and Rocky Mountain Poison Center Phone Number
Reference number:	000000035653
Date of Revision:	07/11/2011
Date Printed:	07/11/2011

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