

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® 1035
Synonyms: Not available
Molecular formula: Mixture
Chemical family: mercaptans
Product use: Odour agents

2. HAZARDS IDENTIFICATION

Emergency Overview

Color: white
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 SKIN IRRITATION.
MAY CAUSE EYE AND RESPIRATORY TRACT IRRITATION.
VAPOR REDUCES OXYGEN AVAILABLE FOR BREATHING.
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:
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: May

cause eye irritation. May cause irritation of respiratory tract. 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 exposure may cause: Allergic skin reaction: redness, rash. May also cause: drying of skin, dermatitis, redness, rash, severe irritation, scabs, (severity of effects depends on extent of exposure).

Skin:

No more than slightly toxic. Slightly irritating. (based on components) Repeated or prolonged skin contact may cause allergic reactions in some individuals.

Inhalation:

Practically nontoxic. Slightly to moderately irritating. (based on components)

Eyes:

Slightly to moderately irritating. (based on components)

Ingestion:

Moderately toxic. (based on components)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Wt/Wt	OSHA Hazardous
2-Propanethiol, 2-methyl-	75-66-1	60 %	Y
Disulfide, dimethyl	624-92-0	40 %	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. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes:

Immediately flush eye(s) with plenty of water. Get medical attention if irritation persists.

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 °F (< -18 °C) (Tag closed cup)

Auto-ignition temperature: 464 °F (240 °C)

Lower flammable limit (LFL): 1.1 %(V) (data for DIMETHYL DISULFIDE (DMDS) (624-92-0))

Upper flammable limit (UFL): 16 %(V) (data for DIMETHYL DISULFIDE (DMDS) (624-92-0))

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:

Vapors may spread long distances and ignite.

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.
Wash thoroughly after handling.
Do not enter confined spaces unless adequately ventilated.
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: Hydrogen peroxide

Hypochlorites

Alkali metals

Strong oxidizing agents

Acids

Bases

Nitric acid

Reducing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne Exposure Guidelines:

Disulfide, dimethyl (624-92-0)

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA):	0.5 ppm
Skin designation	
Remarks:	Can be absorbed through the skin.

Only those components with exposure limits are printed in this section. Limits with skin contact designation above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required. Limits with a sensitizer designation above mean that exposure to this material may cause allergic reactions.

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. Monitor carbon monoxide and oxygen levels in tanks and enclosed spaces.

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: butyl-rubber

nitrile.

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.

Eye protection:

Where eye contact may be likely, wear chemical goggles and have eye flushing equipment available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color: white

Physical state:	liquid
Odor:	pungent
pH:	not determined
Density:	0.816 g/cm ³ (59.9 °F (15.5 °C))
Vapor pressure:	429.23 mmHg
Relative vapor density:	3.25 (data for DIMETHYL DISULFIDE (DMDS) (624-92-0))
Vapor density:	not determined
Boiling point/boiling range:	122 - 156.0 °F (50 - 68.9 °C)
Freezing point:	< -49.9 °F (< -45.5 °C)
Solubility in water:	Negligible

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
Hydrogen peroxide
Nitric acid
Hypochlorites
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 Disulfide, dimethyl (624-92-0)

Acute toxicity

Oral:

Moderately toxic. (rat) LD50 = 290 - 500 mg/kg.

Dermal:

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

Inhalation:

Practically nontoxic. (rat) 4 h LC50 = 5.24 mg/l (1310 ppm).

Signs/effects reported after acute exposure. (rat) 24 h EC = 0.07 mg/l (18 ppm). signs: Degeneration of

nasal epithelium

(rat) 24 h NOAEL = 0.05 mg/l (12 ppm).

Skin Irritation:

Slightly irritating. (rabbit) Irritation Index: 1.5 - 2.5 / 8.0. (4 h)

Eye Irritation:

Slightly to moderately irritating. (rabbit) Irritation Index: 7 - 20 /110.

Skin Sensitization:

Not a skin sensitizer. Buehler Test. (guinea pig) No skin allergy was observed

Repeated dose toxicity

Repeated dermal administration to rabbit / affected organ(s): skin, central nervous system / signs: severe irritation, lethargy / Local irritation (applied undiluted, occluded exposure)

Inhalation administration to rat / affected organ(s): upper respiratory tract / signs: Atrophy of nasal epithelium

Genotoxicity

Assessment in Vitro:

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

Genotoxicity

Assessment in Vivo:

No genetic changes were observed in laboratory tests using: rats

Developmental toxicity

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

Reproductive effects

Two generation reproduction study. inhalation (rat) / No toxicity to reproduction

12. ECOLOGICAL INFORMATION

Chemical Fate and Pathway

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

Data for Disulfide, dimethyl (624-92-0)

Biodegradation:

Not readily biodegradable. (28 d) < 10 % / Closed Bottle test

Slight potential to bioaccumulate.

Octanol Water Partition Coefficient:

log Pow = 1.77 - 1.91 (measured)

is rapidly degraded in air by OH radicals. (air)

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 Disulfide, dimethyl (624-92-0)

Aquatic toxicity data:

Moderately toxic. Danio rerio (zebra fish) 96 h LC50 = 5 mg/l

Highly toxic. Trout 96 h LC50 = 0.97 mg/l

Moderately toxic. Cyprinodon variegatus (sheepshead minnow) 96 h LC50 = 5.6 mg/l

Aquatic invertebrates:

Moderately toxic. Daphnia 48 h EC50 = 1.8 mg/l

Moderately toxic. Mysid shrimp 96 h LC50 = 5 mg/l

Slightly toxic. Oysters 96 h LC50 = 14 mg/l

Algae:

Slightly toxic. Pseudokirchneriella subcapitata 72 h EC50 = 11 - 35 mg/l

Slightly toxic. Common duckweed 7 d EC50 36 - 75 mg/l

Terrestrial non-mammal:

Colinus virginianus (Bobwhite quail) 4 h LC50 (Acute inhalation toxicity) = 478 ppm

Colinus virginianus (Bobwhite quail) LD50 (Acute oral toxicity) = 342 mg/kg

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, Dimethyl disulfide)
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, DIMETHYL DISULPHIDE)
 Class : 3
 Packaging group : II
 Marine pollutant : yes
 Flash point : < 0 °F (< -18 °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

SPOTLEAK® 1035

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>
Disulfide, dimethyl	624-92-0

New Jersey Right to Know – Special Health Hazard Substance(s)

<u>Chemical Name</u>	<u>CAS-No.</u>
Disulfide, dimethyl	624-92-0

Pennsylvania Right to Know

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

Disulfide, dimethyl	624-92-0
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2-Propanethiol, 2-methyl-	75-66-1
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Pennsylvania Right to Know – Environmentally Hazardous Substance(s)

<u>Chemical Name</u>	<u>CAS-No.</u>
Benzene	71-43-2
Disulfide, dimethyl	624-92-0

Pennsylvania Right to Know – Special Hazardous Substance(s)

SPOTLEAK® 1035

Chemical Name
Benzene

CAS-No.
71-43-2

California Prop. 65

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

Chemical Name
Benzene

CAS-No.
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
Benzene

CAS-No.
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): Updated Corporate Address Change and Rocky Mountain Poison Center Phone Number

Reference number: 000000068720

Date of Revision: 07/11/2011

Date Printed: 07/11/2011

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