

## Section 1: Product and Company Identification

**Absolute Accuracy**  
4591 S Wayside Dr  
Houston, TX 77087  
(832) 571-2387

Product Code: 2997

Part Number: 2997

**Synonyms:** Spotleak 1009

**Recommended Use:**

**Usage Restrictions:**

## Section 2: Hazards Identification



**Warning**

### Hazard Classification:

Acute Aquatic Toxicity (Category 1)  
Chronic Aquatic Toxicity (Category 1)  
Eye Effects (Category 2.B)  
Gases Under Pressure

### Hazard Statements:

Causes eye irritation  
Contains gas under pressure; may explode if heated  
Very toxic to aquatic life  
Very toxic to aquatic life with long lasting effects.

### Precautionary Statements

#### Prevention:

Wash thoroughly after handling.

#### Response:

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### Storage:

Protect from sunlight.  
Store in well-ventilated place.

## Section 3: Composition/Information on Ingredients

	CAS #	Concentration
<b>Tert-Butyl Mercaptan</b>	75-66-1	790 ppm
<b>Isopropyl Mercaptan</b>	75-33-2	210 ppm
<b>Nitrogen</b>	7727-37-9	Balance

	Chemical Substance	Chemical Family	Trade Names
<b>Tert-Butyl Mercaptan</b>	2-Methyl 2-Propanethiol	Thiols	2-methyl-2-propanethiol; tert-butanethiol; tert-butythiol; 1,1-dimethylethanethiol; 2-isobutanethiol; 2-propanethiol, 2 methyl-
<b>Isopropyl Mercaptan</b>	Isopropyl Mercaptan	Thiols	isopropanethiol, 2-propanethiol, isoprpylthiol, 2-mercaptopropane, 1-methylethanethiol, 2-propylmercaptan
<b>Nitrogen</b>	NITROGEN, COMPRESSED GAS	Inorganic gases	DIATOMIC NITROGEN; DINITROGEN; NITROGEN; NITROGEN-14; NITROGEN GAS; UN 1066; N2

## Section 4: First Aid Measures

	Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
<b>Tert-Butyl Mercaptan</b>	Remove contaminated clothing. Wash with soap and lots of water. Get medical attention, if needed.	Flush with large amounts of water or saline. Get medical attention.	Never make unconscious person vomit or drink fluids. Give sodium bicarbonate solution. When vomiting occurs, keep head lower than hips to help prevent aspiration. Get medical attention immediately.	Remove to fresh air. Use a bag valve mask or similar device to perform artificial respiration if needed.	For ingestion, consider gastric lavage.
<b>Isopropyl Mercaptan</b>	Remove contaminated clothing, jewelry, and shoes immediately. wash with soap or mild detergent and large amounts of water	Wash eyes immediately with large amounts of water or normal saline	Never make an unconscious person vomit or drink fluids	Remove from exposure immediately	For ingestion, consider gastric lavage
<b>Nitrogen</b>	Wash exposed skin with soap and water.	Flush eyes with plenty of water.	If a large amount is swallowed, get medical attention.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.	For inhalation, consider oxygen.

## Section 5: Fire Fighting Measures

	Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
<b>Tert-Butyl Mercaptan</b>	Regular dry chemical, carbon dioxide, water, regular foam, alcohol resistant foam. Large fires: use regular foam or flood with fine water spray.	Not available	<ul style="list-style-type: none"> <li>▪ Not available</li> <li>▪ Keep unnecessary people away, isolate hazard area and deny entry. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Stay upwind and keep out of low areas.</li> <li>▪ Not available</li> <li>▪ Not available</li> </ul>
<b>Isopropyl Mercaptan</b>	Regular dry chemical, carbon dioxide, water, regular foam	Not available	<ul style="list-style-type: none"> <li>▪ Not available</li> <li>▪ Not available</li> <li>▪ Not available</li> <li>▪ Not available</li> </ul>
<b>Nitrogen</b>	Non-flammable. Use suitable extinguishing media for surrounding fire. Cylinders may rupture or explode if exposed to heat.	Non-flammable	<ul style="list-style-type: none"> <li>▪ Respiratory protection may be needed for frequent or heavy exposure.</li> </ul>

## Section 6: Accidental Release Measures

	Personal Precautions	Environmental Precautions	Methods for Containment
<b>Tert-Butyl Mercaptan</b>	Avoid heat, flames, sparks, and other sources of ignition.	Small: Collect spilled material in appropriate container for disposal. large: dike for later disposal.	Small: Collect spilled material in appropriate container for disposal. large: dike for later disposal.
<b>Isopropyl Mercaptan</b>	Not available	Not available	Collect spilled material in appropriate container for disposal
<b>Nitrogen</b>	Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.	No significant effects from contamination expected.	Stop leak if possible without personal risk.

	Methods for Cleanup	Other Information
<b>Tert-Butyl Mercaptan</b>	Stop leak if possible without personal risk. Reduce vapors with water spray. For small spills, absorb with sand or other non-combustible material.	Not available
<b>Isopropyl Mercaptan</b>	Not available	Not available
<b>Nitrogen</b>	N/A	N/A

## Section 7: Handling and Storage

	Handling	Storage
<b>Tert-Butyl Mercaptan</b>	Store and use with adequate ventilation. Firmly secure cylinders upright to keep them from falling or being knocked over. Screw valve protection cap firmly in place by hand. Store only where temperature will not exceed 125F (52C). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.	Do not get liquid in eyes, on skin, or clothing. Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. Open valve slowly. Close cylinder valve after each use; keep closed even when empty. If valve is hard to open, discontinue use and contact your supplier.

	Handling	Storage
<b>Isopropyl Mercaptan</b>	Store and use with adequate ventilation. Firmly secure cylinders upright to keep them from falling or being knocked over. Screw valve protection cap firmly in place by hand. Store only where temperature will not exceed 125F (52C). Store full and empty cylinders separately. Use a first-in, first-out inventory system to prevent storing full cylinders for long periods.	Do not get liquid in eyes, on skin, or clothing. Protect cylinders from damage. Use a suitable hand truck to move cylinders; do not drag, roll, slide, or drop. Open valve slowly. Close cylinder valve after each use; keep closed even when empty. If valve is hard to open, discontinue use and contact your supplier
<b>Nitrogen</b>	Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.	Keep separated from incompatible substances.

## Section 8: Exposure Controls/Personal Protection

	Exposure Guidelines
<b>Tert-Butyl Mercaptan</b>	No occupational exposure limits established.
<b>Isopropyl Mercaptan</b>	None established
<b>Nitrogen</b>	NITROGEN, COMPRESSED GAS: NITROGEN: ACGIH (simple asphyxiant)

### Engineering Controls

Handle only in fully enclosed systems.

	Eye Protection	Skin Protection	Respiratory Protection
<b>Tert-Butyl Mercaptan</b>	Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.	Wear appropriate chemical resistant clothing	Not available
<b>Isopropyl Mercaptan</b>	Wear splash resistant safety goggles	Wear appropriate chemical resistant clothing	Not available
<b>Nitrogen</b>	Eye protection not required, but recommended.	Protective clothing is not required.	Respiratory protection may be needed for frequent or heavy exposure.

### General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

## Section 9: Physical and Chemical Properties

	Physical State	Appearance	Color	Change in Appearance	Physical Form	Odor	Taste
<b>Tert-Butyl Mercaptan</b>	Liquid	Colorless	Colorless		Liquid	Skunk-like odor	Not available
<b>Isopropyl Mercaptan</b>	Liquid	Colorless	Colorless	Not available	Liquid	Skunk like odor	Not available
<b>Nitrogen</b>	Gas	Clear	Colorless	N/A	Gas	Odorless	Tasteless

	Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits	Lower Explosive Limits
<b>Tert-Butyl Mercaptan</b>	< -20 deg F	IB	Not available	Not available	Not available	Not available
<b>Isopropyl Mercaptan</b>	Not available	Not available	Not available	Not available	Not available	Not available
<b>Nitrogen</b>	Not flammable	Not available	Not available	Nonflammable	Nonflammable	Nonflammable

	Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity	Water Solubility	pH	Odor Threshold	Evaporation Rate	Viscosity
<b>Tert-Butyl Mercaptan</b>	147 F	34 F	181 mm Hg at 25 deg C	3.1 (Air=1)	.8002	Slightly soluble	Not available	Not available	Not available	Not available
<b>Isopropyl Mercaptan</b>	127 F	-204F	Not available	2.6 (Air=1)	0.8143	Insoluble	Not available	0.25 ppb	Not available	Not available
<b>Nitrogen</b>	-321 F (-196 C)	-346 F (-210 C)	760 mmHg @ -196 C	0.967 (Air=1)	Not applicable	1.6% @ 20 C	Not applicable	Not available	Not applicable	0.01787 cP @ 27 C

	Molecular Weight	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
<b>Tert-Butyl Mercaptan</b>	90.18	(CH <sub>3</sub> ) <sub>3</sub> CSH <sub>3</sub> CSH	Not available	Not available	Not available	Not available	Soluble: alcohol, ether, liquid hydrogen sulfide
<b>Isopropyl Mercaptan</b>	76.16	(CH <sub>3</sub> ) <sub>2</sub> CHSH	Not available	Not available	Not available	Not available	Alcohol, ether, acetone
<b>Nitrogen</b>	28.0134	N <sub>2</sub>	1.2506 g/L	Not available	100%	1	Soluble: Liquid ammonia

## Section 10: Stability and Reactivity

	Stability	Conditions to Avoid	Incompatible Materials
<b>Tert-Butyl Mercaptan</b>	Stable at normal temperatures and pressure	Stable at normal temperatures and pressure	Acids, oxidizing materials
<b>Isopropyl Mercaptan</b>	Stable at normal temperatures and pressure	Stable at normal temperatures and pressure	Acids, oxidizing materials
<b>Nitrogen</b>	Stable at normal temperatures and pressure.	Stable at normal temperatures and pressure.	Metals, oxidizing materials

	Hazardous Decomposition Products	Possibility of Hazardous Reactions
<b>Tert-Butyl Mercaptan</b>	Thermal decomposition products: hydrogen sulfide, oxides of sulfur, carbon	Will not polymerize
<b>Isopropyl Mercaptan</b>	Thermal decomposition products: hydrogen sulfide, oxides of sulfur, carbon	Will not occur
<b>Nitrogen</b>	Oxides of nitrogen	Will not polymerize.

## Section 11: Toxicology Information

### Acute Effects

	Oral LD50	Dermal LD50	Inhalation
<b>Tert-Butyl Mercaptan</b>	4729 mg/kg oral-rat	Not available	Irritation, lack of sense of smell, nausea, vomiting, diarrhea, difficult breathing, headache, symptoms of drunkenness, bluish skin color, lung congestion, kidney damage, convulsions, coma
<b>Isopropyl Mercaptan</b>	Not available	Not available	Irritation, lack of sense of smell, nausea, vomiting, diarrhea, difficulty breathing, headache, symptoms of drunkenness,
<b>Nitrogen</b>	Not available	Not available	Nausea, vomiting, difficulty breathing, headache, drowsiness, dizziness, tingling sensation, loss of coordination, convulsions, coma

	Eye Irritation	Skin Irritation	Sensitization
<b>Tert-Butyl Mercaptan</b>	Not available	Irritation	Skin sensitisation, Category 1; H317: May cause an allergic skin reaction.
<b>Isopropyl Mercaptan</b>	Irritation	Irritation	Eye irritation, Category 2; H319: Causes serious eye irritation. Hazardous to the aquatic environment, Acute Category 1; H400: Very toxic to aquatic life. Hazardous to the aquatic environment, Chronic Category 1; H410: Very toxic to aquatic life with long lasting effects.
<b>Nitrogen</b>	Contact with rapidly expanding gas may cause burns or frostbite	No information on significant adverse effects	Difficulty breathing

### Chronic Effects

	Carcinogenicity	Mutagenicity	Reproductive Effects	Developmental Effects
<b>Tert-Butyl Mercaptan</b>	Not available	Not Available	Not Available	No data
<b>Isopropyl Mercaptan</b>	Not available	Not available	Not available	No data
<b>Nitrogen</b>	Not hazardous	Not available	Not available	No data

## Section 12: Ecological Information

### Fate and Transport

	Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
<b>Tert-Butyl Mercaptan</b>	Fish toxicity: not available Invertebrate toxicity: not available Algal toxicity: not available Phyto toxicity: not available Other toxicity: not available	Not available	Not available	Not available
<b>Isopropyl Mercaptan</b>	Fish toxicity: not available Invertebrate toxicity: not available	Not available	Not available	Not available

	Algal toxicity: not available Phyto toxicity: not available Other toxicity: not available			
<b>Nitrogen</b>	Fish toxicity: Not available Invertebrate toxicity: Not available Algal toxicity: Not available Phyto toxicity: Not available Other toxicity: Not available	Not available	Not available	Not available

## Section 13: Disposal Considerations

<b>Tert-Butyl Mercaptan</b>	Subject to disposal regulations :U.S. EPA 40 CFR 262. Hazardous Waste Number: D001. Dispose in accordance with all current regulations.
<b>Isopropyl Mercaptan</b>	Subject to disposal regulations: US EPA 40 CFR 262. #D001
<b>Nitrogen</b>	Dispose in accordance with all applicable regulations.

## Section 14: Transportation Information

### U.S. DOT 49 CFR 172.101

#### DOT Information For This Mixture

<b>Shipping Name</b>	Compressed gas, n.o.s. (Nitrogen, Tert-Butyl Mercaptan)
<b>UN Number</b>	UN1956
<b>Hazard Class</b>	2.2
<b>Hazard Information</b>	Non-Flammable Gas

#### Individual Component Information

	Proper Shipping Name	ID Number	Hazard Class or Division	Packing Group	Labeling Requirements	Passenger Aircraft or Railcar Quantity Limitations	Cargo Aircraft Only Quantity Limitations	Additional Shipping Description
<b>Tert-Butyl Mercaptan</b>	Butyl mercaptans	UN2347	3	II	Flammable liquid	Not available	Not available	Not available

	Proper Shipping Name	ID Number	Hazard Class or Division	Packing Group	Labeling Requirements	Passenger Aircraft or Railcar Quantity Limitations	Cargo Aircraft Only Quantity Limitations	Additional Shipping Description
Isopropyl Mercaptan	Propanethiols	UN2402	3	II	Flammable Liquid	Not available	Not available	Not available
Nitrogen	Nitrogen, compressed	UN1066	2.2	Not applicable	2.2	75 kg or L	150 kg	N/A

### Canadian Transportation of Dangerous Goods

	Shipping Name	UN Number	Class	Packing Group / Risk Group
Tert-Butyl Mercaptan	Butyl Mercaptans	UN23347	3	II
Isopropyl Mercaptan	Propanethiols	UN2402	3	II
Nitrogen	Nitrogen, compressed	UN1066	2.2	Not applicable

## Section 15: Regulatory Information

### U.S. Regulations

	CERCLA Sections	SARA 355.30	SARA 355.40
Tert-Butyl Mercaptan	Not available	Not available	Not available
Isopropyl Mercaptan	Not available	Not available	Not available
Nitrogen	Not regulated.	Not regulated.	Not regulated.

### SARA 370.21

	Acute	Chronic	Fire	Reactive	Sudden Release
Tert-Butyl Mercaptan	No	No	Yes	No	Not available
Isopropyl Merc	N	N	Y	N	N



<b>aptan</b>					
<b>Nitrogen</b>	Yes	No	No	No	Yes

### SARA 372.65

<b>Tert-Butyl Mercaptan</b>	Not available
<b>Isopropyl Mercaptan</b>	Not available
<b>Nitrogen</b>	Not regulated.

### OSHA Process Safety

<b>Tert-Butyl Mercaptan</b>	No
<b>Isopropyl Mercaptan</b>	N
<b>Nitrogen</b>	Not regulated.

### State Regulations

	<b>CA Proposition 65</b>
<b>Tert-Butyl Mercaptan</b>	Not listed
<b>Isopropyl Mercaptan</b>	N
<b>Nitrogen</b>	Not regulated.

### Canadian Regulations

	<b>WHMIS Classification</b>
<b>Tert-Butyl Mercaptan</b>	Not available
<b>Isopropyl Mercaptan</b>	Not available
<b>Nitrogen</b>	A

### National Inventory Status

	<b>US Inventory (TSCA)</b>	<b>TSCA 12b Export Notification</b>	<b>Canada Inventory (DSL/NDSL)</b>
<b>Tert-Butyl Mercaptan</b>	Listed on inventory	Not listed	Not available
<b>Isopropyl Mercaptan</b>	Yes	Not listed	Not available
<b>Nitrogen</b>	Listed on inventory.	Not listed.	Listed on inventory.

## Section 16: Other Information

	<b>NFPA Rating</b>
<b>Tert-Butyl Mercaptan</b>	HEALTH: 0, FIRE: 3, REACTIVITY:0
<b>Isopropyl Mercaptan</b>	Health:1, fire:3, reactivity:0
<b>Nitrogen</b>	HEALTH=0 FIRE=0 REACTIVITY=0 SPECIAL=SA

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard