# Safety Data Sheet

**Issuing Date** Mar-05-2013 **Revision Date** Feb-16-2015 **Revision Number** 0

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product identifier**

**Product name** **Sulfide Test Solution #7**

**Other means of identification**

**Product Code(s)** **4639**

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Use as a laboratory reagent. Industrial (not for food or food contact use). Laboratory chemicals.

**Details of the supplier of the safety data sheet**

**Manufacturer Address**
LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620 USA
T 410-778-3100
F 410-778-9748

**Emergency telephone number**

24 Hour Emergency Number (CHEM-TEL):USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

## 2. HAZARDS IDENTIFICATION

**OSHA Regulatory Status**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

**EMERGENCY OVERVIEW**

**Appearance** Clear, colorless **Physical state** liquid **Odor** Odorless

**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Keep out of reach of children.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
IF SWALLOWED, Drink 1 or 2 glasses of water, Call a physician immediately

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep cool.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical name | CAS No | Weight-% |
|---|---|---|
| Toluene | 108-88-3 | 0.05 |
| Aluminum sulfate hexadecahydrate | 16828-11-8 | 25 |
| Water | 7732-18-5 | to 100% |

## 4. FIRST AID MEASURES

**First Aid Measures**

**General advice** Do not get in eyes, on skin, or on clothing.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

**Skin contact** Wash off immediately with soap and plenty of water for at least 15 minutes. Remove material from skin immediately. Take off contaminated clothing. Call a physician immediately.

**Inhalation** Remove to fresh air. If breathing is difficult, give oxygen. Give artificial respiration if victim is not breathing. Call a physician immediately.

**Ingestion** Do not induce vomiting without medical advice. Drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

**Self-protection of the first aider** Use personal protection recommended in Section 8. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. See section 8 for more information.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**
Water spray. Dry chemical. Carbon dioxide ($CO_2$). Foam.

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Use personal protection recommended in Section 8. Avoid contact with skin, eyes, and inhalation of vapors. See section 8.

**Environmental precautions** See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for containment** Dispose of contents/containers in accordance with local regulations.

**Methods for cleaning up** Use personal protection recommended in Section 8. Neutralize liquid with alkaline material (sodium bicarbonate). Place into a container and hold in a safe place for later disposal. If local regulations permit dilute with water and rinse to drain with excess water. Never return spills in original containers for re-use. Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water. Do not reuse empty containers.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes, skin and clothing. Do not taste or swallow. Do not eat, drink or smoke when using this product.

**Conditions for safe storage, including any incompatibilities**

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep in properly labeled containers. Store away from strong bases or metals. Store away from strong acids. Store away from incompatible materials.

**Incompatible Products** Finely powdered metals. Strong reducing agents. Strong bases.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---|---|---|---|
| Toluene<br>108-88-3 | TWA: 20 ppm | TWA: 200 ppm<br>Ceiling: 300 ppm | IDLH: 500 ppm<br>TWA: 100 ppm<br>TWA: 375 mg/m$^3$<br>STEL: 150 ppm<br>STEL: 560 mg/m$^3$ |
| Aluminum sulfate hexadecahydrate<br>16828-11-8 | - | - | TWA: 2 mg/m$^3$ |
| Water<br>7732-18-5 | - | - | Not Established |

**Appropriate engineering controls**

**Engineering Measures** Showers
Eyewash stations
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Wear safety glasses with side shields (or goggles).

**Skin and body protection** Protective gloves. Wear suitable protective clothing.

**Respiratory protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

**Physical state** liquid
**Appearance** Clear, colorless **Odor** Odorless

| Property | Values | Remarks • Method |
|---|---|---|
| **pH** | 3 | No information available |
| **Melting point / freezing point** | No information available | |
| **Boiling point / boiling range** | No information available | |
| **Flash point** | No information available | |

| | |
|---|---|
| **Evaporation rate** | |
| **Flammability (solid, gas)** | No information available |
| **Flammability Limit in Air** | |
| **Upper flammability limit:** | No information available |
| **Lower flammability limit:** | No information available |
| **Vapor pressure** | <17 mm Hg @ 20 deg C |
| **Vapor density** | <1 (Air=1) |
| **Specific gravity** | No information available |
| **Water solubility** | Soluble in water |
| **Solubility in other solvents** | No information available |
| **Partition coefficient** | No information available |
| **Autoignition temperature** | No information available |
| **Decomposition temperature** | No information available |
| **Kinematic viscosity** | No information available |
| **Dynamic viscosity** | No information available |
| **Explosive properties** | No information available |
| **Oxidizing properties** | No information available |

**Other Information**

| | |
|---|---|
| **Softening point** | No information available |
| **Molecular weight** | No information available |
| **VOC Content (%)** | No information available |
| **Density** | No information available |
| **Bulk density** | No information available |

## 10. STABILITY AND REACTIVITY

| | |
|---|---|
| **Stability** | Stable under normal conditions of use and storage. Stable under recommended storage conditions. |
| **Hazardous polymerization** | No information available. |
| **Conditions to avoid** | Incompatible Products. Excessive heat. |
| **Incompatible materials** | Finely powdered metals. Strong reducing agents. Strong bases. |
| **Hazardous decomposition products** | None under normal use. Heating can release hazardous gases. Sulfur oxides (SOx). |

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Component Information**

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|---|---|---|
| Toluene<br>108-88-3 | = 2600 mg/kg ( Rat ) | = 12000 mg/kg ( Rabbit ) | = 12.5 mg/L ( Rat ) 4 h |
| Aluminum sulfate hexadecahydrate<br>16828-11-8 | = 1930 mg/kg ( Rat ) | Not Established | Not Established |
| Water<br>7732-18-5 | > 90 mL/kg ( Rat ) | Not Established | Not Established |

**Information on toxicological effects**

| Chemical name | ACGIH | IARC | NTP | OSHA |
|---|---|---|---|---|
| Toluene<br>108-88-3 | Not Established | Group 3 | Not Established | Not Established |
| Aluminum sulfate hexadecahydrate<br>16828-11-8 | Not Established | Not Established | Not Established | Not Established |
| Water<br>7732-18-5 | Not Established | Not Established | Not Established | Not Established |

**ATEmix (oral)** 7720

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Unknown Aquatic Toxicity** 0 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Chemical name | Toxicity to Algae | Toxicity to Fish | Daphnia Magna (Water Flea) |
|---|---|---|---|
| Toluene<br>108-88-3 | 12.5: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 433: 96 h Pseudokirchneriella subcapitata mg/L EC50 | 11.0 - 15.0: 96 h Lepomis macrochirus mg/L LC50 static 14.1 - 17.16: 96 h Oncorhynchus mykiss mg/L LC50 static 15.22 - 19.05: 96 h Pimephales promelas mg/L LC50 flow-through 5.89 - 7.81: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 50.87 - 70.34: 96 h Poecilia reticulata mg/L LC50 static 12.6: 96 h Pimephales promelas mg/L LC50 static 28.2: 96 h Poecilia reticulata mg/L LC50 semi-static 5.8: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 54: 96 h Oryzias latipes mg/L LC50 static | 5.46 - 9.83: 48 h Daphnia magna mg/L EC50 Static 11.5: 48 h Daphnia magna mg/L EC50 |
| Aluminum sulfate hexadecahydrate<br>16828-11-8 | Not Established | 100: 96 h Carassius auratus mg/L LC50 37: 96 h Gambusia affinis mg/L LC50 static | 136: 15 min Daphnia magna mg/L EC50 |
| Water<br>7732-18-5 | Not Established | Not Established | Not Established |

**Persistence and degradability**

No information available.

**Bioaccumulation/Accumulation**

No information available.

| Chemical name | Log Pow |
|---|---|
| Toluene<br>108-88-3 | 2.65 |
| Aluminum sulfate hexadecahydrate<br>16828-11-8 | Not Established |
| Water<br>7732-18-5 | Not Established |

## 13. DISPOSAL CONSIDERATIONS

**Disposal Methods** Dispose of waste product or used containers according to local regulations.

**Contaminated packaging** Do not reuse empty containers.

| Chemical name | RCRA | RCRA - Basis for Listing | RCRA - D Series Wastes | RCRA - U Series Wastes |
|---|---|---|---|---|
| Toluene<br>108-88-3 | waste number U220 | Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151 | Not Established | Not Established |
| Aluminum sulfate hexadecahydrate<br>16828-11-8 | Not Established | - | Not Established | Not Established |
| Water<br>7732-18-5 | Not Established | - | Not Established | Not Established |

| Chemical name | RCRA - Halogenated Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|---|---|---|---|---|
| Toluene<br>108-88-3 | Not Established | Not Established | Toxic waste<br>waste number F025<br>Waste description: Condensed light ends, spent filters and filter aids, and | Not Established |

| | | | | |
|---|---|---|---|---|
| | | | spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. | |
| Aluminum sulfate hexadecahydrate 16828-11-8 | Not Established | Not Established | Not Established | Not Established |
| Water 7732-18-5 | Not Established | Not Established | Not Established | Not Established |

| Chemical name | California Hazardous Waste Status |
|---|---|
| Toluene 108-88-3 | - |
| Aluminum sulfate hexadecahydrate 16828-11-8 | - |
| Water 7732-18-5 | - |

## 14. TRANSPORT INFORMATION

**DOT** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

## 15. REGULATORY INFORMATION

**International Inventories**

| | |
|---|---|
| **TSCA** | Complies |
| **DSL/NDSL** | Complies |
| **EINECS/ELINCS** | Complies |
| **ENCS** | Complies |
| **IECSC** | Complies |
| **KECL** | Complies |
| **PICCS** | Complies |
| **AICS** | Complies |

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
**ENCS** - Japan Existing and New Chemical Substances
**IECSC** - China Inventory of Existing Chemical Substances
**KECL** - Korean Existing and Evaluated Chemical Substances
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances
**AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical name | SARA 313 - Threshold Values % |
|---|---|
| Toluene<br>108-88-3 | 1.0 |
| Aluminum sulfate hexadecahydrate<br>16828-11-8 | Not Established |
| Water<br>7732-18-5 | Not Established |

**SARA 311/312 Hazard Categories**

| | |
|---|---|
| **Acute health hazard** | Yes |
| **Chronic Health Hazard** | No |
| **Fire hazard** | No |
| **Sudden release of pressure hazard** | No |
| **Reactive Hazard** | No |

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42): Toluene

| Chemical name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---|---|---|---|---|
| Toluene<br>108-88-3 | 1000 lb | X | X | X |
| Aluminum sulfate hexadecahydrate<br>16828-11-8 | Not Established | Not Established | Not Established | Not Established |
| Water<br>7732-18-5 | Not Established | Not Established | Not Established | Not Established |

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical name | Hazardous Substances RQs | CERCLA/SARA RQ | RQ |
|---|---|---|---|
| Toluene<br>108-88-3 | 1000 lb 1 lb | Not Established | RQ 1000 lb final RQ<br>RQ 454 kg final RQ RQ 1 lb final RQ<br>RQ 0.454 kg final RQ |
| Aluminum sulfate hexadecahydrate<br>16828-11-8 | 5000 lb | Not Established | RQ 5000 lb final RQ<br>RQ 2270 kg final RQ |
| Water<br>7732-18-5 | - | Not Established | - |

## US State Regulations

**California Proposition 65**

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

| Chemical name | California Proposition 65 |
|---|---|
| Toluene<br>108-88-3 | Developmental<br>Female Reproductive |
| Aluminum sulfate hexadecahydrate<br>16828-11-8 | Not Established |
| Water<br>7732-18-5 | Not Established |

**U.S. State Right-to-Know Regulations**

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---|---|---|---|
| Toluene<br>108-88-3 | X | X | X |
| Aluminum sulfate hexadecahydrate<br>16828-11-8 | X | X | X |
| Water<br>7732-18-5 | Not Established | Not Established | X |

## 16. OTHER INFORMATION

| | | | | |
|---|---|---|---|---|
| **NFPA** | **Health hazard** 1 | **Flammability** 0 | **Instability** 0 | **Physical and Chemical Hazards** N/A |
| **HMIS** | **Health hazard** 1 | **Flammability** 0 | **Stability** 0 | |


| | |
|---|---|
| Health Hazard | 1 |
| Fire Hazard | 0 |
| Reactivity | 0 |

**Prepared by** Regulatory Affairs Department
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**Disclaimer**

**The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.**

**End of Material Safety Data Sheet**