

# SAFETY DATA SHEET

# spectrum®



Revision date 24-March-2021

Revision Number 2

## 1. Identification

### Product identifier

**Product Name** 1,1,2,2-TETRABROMOETHANE, PRACTICAL

### Other means of identification

**Product Code(s)** T1022

**UN/ID no** UN2504

**Synonyms** None

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

**Recommended use** No information available

**Restrictions on use** No information available

### Details of the supplier of the safety data sheet

#### Supplier Address

Spectrum Chemical Mfg. Corp.  
14422 South San Pedro St.  
Gardena, CA 90248  
(310) 516-8000

### Emergency telephone number

**Emergency Telephone** Chemtrec 1-800-424-9300

## 2. Hazard(s) identification

### Classification

|   |             |
|---|-------------|
| Acute toxicity - Oral                     | Category 4  |
| Acute toxicity - Inhalation (Gases)       | Category 2  |
| Acute toxicity - Inhalation (Vapors)      | Category 2  |
| Acute toxicity - Inhalation (Dusts/Mists) | Category 2  |
| Skin corrosion/irritation                 | Category 2  |
| Serious eye damage/eye irritation         | Category 2A |

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

**Danger**

### Hazard statements

Harmful if swallowed

Fatal if inhaled  
Causes skin irritation  
Causes serious eye irritation



**Appearance** Clear

**Physical state** Liquid

**Odor** No information available

#### Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Do not breathe dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
Wear respiratory protection  
Wear protective gloves/eye protection/face protection

#### Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention  
IF ON SKIN: Wash with plenty of water and soap  
If skin irritation occurs: Get medical advice/attention  
Take off contaminated clothing and wash it before reuse  
IF INHALED: Remove person to fresh air and keep comfortable for breathing  
Immediately call a POISON CENTER or doctor  
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell  
Rinse mouth

#### Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed  
Store locked up.

#### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

#### Unknown acute toxicity

#### Other information

No information available.

### 3. Composition/information on ingredients

#### Substance

| Chemical name            | CAS No  | Weight-% | Trade secret |
|--------------------------|---------|----------|--------------|
| 1,1,2,2-Tetrabromoethane | 79-27-6 | 100      | *            |

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. First-aid measures

#### Description of first aid measures

|   |  |
|---|--|
| <b>General advice</b>                     | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.  |
| <b>Inhalation</b>                         | If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. 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. If breathing is difficult, (trained personnel should) give oxygen. Get medical attention immediately if symptoms occur.   |
| <b>Eye contact</b>                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.  |
| <b>Skin contact</b>                       | Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.   |
| <b>Ingestion</b>                          | Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.   |
| <b>Self-protection of the first aider</b> | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not breathe vapor or mist. 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. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. |

#### **Most important symptoms and effects, both acute and delayed**

|                 |   |
|-----------------|---|
| <b>Symptoms</b> | Coughing and/ or wheezing. Difficulty in breathing. May cause redness and tearing of the eyes. Burning sensation. |
|-----------------|---|

#### **Indication of any immediate medical attention and special treatment needed**

|                           |                        |
|---------------------------|------------------------|
| <b>Note to physicians</b> | Treat symptomatically. |
|---------------------------|------------------------|

### **5. Fire-fighting measures**

|   |  |
|---|--|
| <b>Suitable Extinguishing Media</b>                   | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.                            |
| <b>Large Fire</b>                                     | CAUTION: Use of water spray when fighting fire may be inefficient.   |
| <b>Unsuitable extinguishing media</b>                 | Do not scatter spilled material with high pressure water streams.  |
| <b>Specific hazards arising from the chemical</b>     | No information available.  |
| <b>Hazardous combustion products</b>                  | May burn violently. Decomposition may be self-accelerating and produce large amounts of gases. Carbon dioxide (CO <sub>2</sub> ).  |
| <b>Explosion data</b>                                 |  |
| <b>Sensitivity to mechanical impact</b>               | none.  |
| <b>Sensitivity to static discharge</b>                | none.  |
| <b>Special protective equipment for fire-fighters</b> | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. |

### **6. Accidental release measures**

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

|                             |  |
|-----------------------------|--|
| <b>Personal precautions</b> | Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Use personal protective equipment as required. Evacuate personnel to safe areas. |
|-----------------------------|--|

Keep people away from and upwind of spill/leak.

**Other information**

Refer to protective measures listed in Sections 7 and 8.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**7. Handling and storage**

**Precautions for safe handling**

**Advice on safe handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

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

**Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

**8. Exposure controls/personal protection**

**Control parameters**

**Exposure Limits**

| Chemical name                       | ACGIH TLV         | OSHA PEL                              | NIOSH IDLH |
|-------------------------------------|-------------------|---------------------------------------|------------|
| 1,1,1,2-Tetrabromoethane<br>79-27-6 | No data available | 1 ppm TWA<br>14 mg/m <sup>3</sup> TWA | -          |

**Appropriate engineering controls**

**Engineering controls**

Showers  
Eyewash stations  
Ventilation systems.

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

**Eye/face protection**

If splashes are likely to occur, wear safety glasses with side-shields.

**Hand protection**

Wear suitable gloves. Impervious gloves.

**Skin and body protection**

Wear suitable protective clothing. Long sleeved clothing.

**Respiratory protection**

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

**General hygiene considerations**

Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. 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                    |
| Color          | Yellowish                |
| Odor           | No information available |
| Odor threshold | No information available |

| <u>Property</u>                        | <u>Values</u>              | <u>Remarks • Method</u> |
|--|----------------------------|-------------------------|
| pH                                     | no data available          | None known              |
| Melting point / freezing point         | -1 - 1 °C / 30.2 - 33.8 °F | None known              |
| Boiling point / boiling range          | 119 °C / 246.2 °F          | None known              |
| Flash point                            | no data available          | None known              |
| Evaporation rate                       | no data available          | None known              |
| Flammability (solid, gas)              | no data available          | None known              |
| Flammability Limit in Air              |                            | None known              |
| Upper flammability or explosive limits | No data available          |                         |
| Lower flammability or explosive limits | No data available          |                         |
| Vapor pressure                         | 0.01                       | None known              |
| Vapor density                          | 11.93                      | None known              |
| Relative density                       | 2.97                       | None known              |
| Water solubility                       | No data available          | None known              |
| Solubility(ies)                        | no data available          | None known              |
| Partition coefficient                  | No data available          | None known              |
| Autoignition temperature               | no data available          | None known              |
| Decomposition temperature              |                            | None known              |
| Kinematic viscosity                    | no data available          | None known              |
| Dynamic viscosity                      | No data available          | None known              |

### Other information

|                      |                          |
|----------------------|--------------------------|
| Explosive properties | No information available |
| Oxidizing properties | No information available |
| Softening point      | No information available |
| Molecular weight     | No information available |
| VOC Content (%)      | No information available |
| Liquid Density       | No information available |
| Bulk density         | No information available |

## 10. Stability and reactivity

|                                    |  |
|------------------------------------|--|
| Reactivity                         | No information available.                            |
| Chemical stability                 | Stable under normal conditions.                      |
| Possibility of hazardous reactions | None under normal processing.                        |
| Conditions to avoid                | Excessive heat.                                      |
| Incompatible materials             | Strong acids. Strong bases. Strong oxidizing agents. |
| Hazardous decomposition products   | None known based on information supplied.            |

## 11. Toxicological information

### Information on likely routes of exposure

Product Information

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | Specific test data for the substance or mixture is not available. Fatal if inhaled. (based on components). May cause irritation of respiratory tract.  |
| <b>Eye contact</b>  | Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes serious eye irritation.  |
| <b>Skin contact</b> | Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).   |
| <b>Ingestion</b>    | Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed. (based on components). |

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** Coughing and/ or wheezing. Difficulty in breathing. Redness. May cause redness and tearing of the eyes.

**Acute toxicity**

**Numerical measures of toxicity**

**Unknown acute toxicity**

| Chemical name                       | Oral LD50           | Dermal LD50          | Inhalation LC50  |
|-------------------------------------|---------------------|----------------------|--|
| 1,1,2,2-Tetrabromoethane<br>79-27-6 | = 924 mg/kg ( Rat ) | = 5250 mg/kg ( Rat ) | = 0.549 mg/L ( Rat ) 4 h = 549 mg/m <sup>3</sup> ( Rat ) 4 h |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

|  |  |
|--|--|
| <b>Skin corrosion/irritation</b>         | Classification based on data available for ingredients. Irritating to skin.            |
| <b>Serious eye damage/eye irritation</b> | Classification based on data available for ingredients. Causes serious eye irritation. |
| <b>Respiratory or skin sensitization</b> | No information available.  |
| <b>Germ cell mutagenicity</b>            | No information available.  |
| <b>Reproductive toxicity</b>             | No information available.  |
| <b>STOT - single exposure</b>            | No information available.  |
| <b>STOT - repeated exposure</b>          | No information available.  |
| <b>Target organ effects</b>              | liver, respiratory system, Eyes, central nervous system.                               |
| <b>Aspiration hazard</b>                 | No information available.  |
| <b>Other adverse effects</b>             | No information available.  |
| <b>Interactive effects</b>               | No information available.  |

**12. Ecological information**

|                                      |   |
|--------------------------------------|---|
| <b>Ecotoxicity</b>                   | The environmental impact of this product has not been fully investigated. |
| <b>Persistence and degradability</b> | No information available.   |
| <b>Bioaccumulation</b>               | Inherently biodegradable.   |
| <b>Other adverse effects</b>         | No information available.   |

**13. Disposal considerations**

## Waste treatment methods

|  |   |
|--|---|
| <b>Waste from residues/unused products</b> | Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. |
| <b>Contaminated packaging</b>              | Do not reuse empty containers.  |

## **14. Transport information**

### DOT

|  |                                    |
|--|------------------------------------|
| <b>UN/ID no</b>                        | UN2504                             |
| <b>Proper Shipping Name:</b>           | Tetrabromoethane                   |
| <b>Hazard class</b>                    | 6.1                                |
| <b>Packing group:</b>                  | III                                |
| <b>Special Provisions</b>              | IB3, T4, TP1                       |
| <b>Marine Pollutant</b>                | Severe Marine Pollutant            |
| <b>Description:</b>                    | UN2504, Tetrabromoethane, 6.1, III |
| <b>Emergency Response Guide Number</b> | 159                                |

### TDG

|                              |                                    |
|------------------------------|------------------------------------|
| <b>UN-No:</b>                | UN2504                             |
| <b>Proper Shipping Name:</b> | Tetrabromoethane                   |
| <b>Hazard class</b>          | 6.1                                |
| <b>Packing Group:</b>        | III                                |
| <b>Description:</b>          | UN2504, Tetrabromoethane, 6.1, III |

### MEX

|                             |                                    |
|-----------------------------|------------------------------------|
| <b>UN-No</b>                | UN2504                             |
| <b>Proper Shipping Name</b> | Tetrabromoethane                   |
| <b>Hazard class</b>         | 6.1                                |
| <b>Packing Group</b>        | III                                |
| <b>Description</b>          | UN2504, Tetrabromoethane, 6.1, III |

### ICAO (air)

|                              |                                    |
|------------------------------|------------------------------------|
| <b>UN-No:</b>                | UN2504                             |
| <b>Proper Shipping Name:</b> | Tetrabromoethane                   |
| <b>Hazard class</b>          | 6.1                                |
| <b>Packing Group:</b>        | III                                |
| <b>Description:</b>          | UN2504, Tetrabromoethane, 6.1, III |

### IATA

|                                   |                                    |
|-----------------------------------|------------------------------------|
| <b>UN number</b>                  | UN2504                             |
| <b>Proper Shipping Name:</b>      | Tetrabromoethane                   |
| <b>Transport hazard class(es)</b> | 6.1                                |
| <b>Packing group</b>              | III                                |
| <b>Description:</b>               | UN2504, Tetrabromoethane, 6.1, III |

### IMDG

|                                   |                                    |
|-----------------------------------|------------------------------------|
| <b>UN number</b>                  | UN2504                             |
| <b>Proper shipping name</b>       | Tetrabromoethane                   |
| <b>Transport hazard class(es)</b> | 6.1                                |
| <b>Packing group</b>              | III                                |
| <b>EmS-No</b>                     | F-A, S-A                           |
| <b>Marine pollutant</b>           | NP1                                |
| <b>Description</b>                | UN2504, Tetrabromoethane, 6.1, III |

### RID

|                                   |                  |
|-----------------------------------|------------------|
| <b>UN number</b>                  | UN2504           |
| <b>Proper Shipping Name:</b>      | Tetrabromoethane |
| <b>Transport hazard class(es)</b> | 6.1              |
| <b>Packing group</b>              | III              |
| <b>Classification code</b>        | T1               |

**Description:** UN2504, Tetrabromoethane, 6.1, III  
**Labels** 6.1

**ADR**

**UN number** 2504  
**Proper Shipping Name:** Tetrabromoethane  
**Transport hazard class(es)** 6.1  
**Packing group** III  
**Classification code** T1  
**Tunnel restriction code** (E)  
**Description:** 2504, Tetrabromoethane, 6.1, III, (E)  
**Labels** 6.1

**ADN**

**UN/ID No** UN2504  
**Proper shipping name** Tetrabromoethane  
**Transport hazard class(es)** 6.1  
**Packing Group** III  
**Classification code** T1  
**Special Provisions** 802  
**Description** UN2504, Tetrabromoethane, 6.1, III  
**Hazard label(s)** 6.1  
**Limited quantity (LQ)** 5 L  
**ventilation** VE02  
**Equipment Requirements** PP, EP, TOX, A

**15. Regulatory information**

**International Inventories**

**TSCA** Complies

**DSL/NDSL** Complies  
**EINECS/ELINCS** Complies  
**ENCS** This product complies with ENCS:  
**IECSC** This product complies with China:  
**KECL** Complies  
**PICCS** Complies  
**AICS** All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

**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

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**



This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### **US State Regulations**

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

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

This product does not contain any substances regulated under applicable state right-to-know regulations

### **U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

## **16. Other information**

### **NFPA**

**Health hazards** 4

**Flammability** 0

**Instability** 0

**Physical and chemical properties** -

### **HMIS**

**Health hazards** 4

**Flammability** 0

**Physical hazards** 0

**Personal protection** X

### **Key or legend to abbreviations and acronyms used in the safety data sheet**

#### **Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         |      |                                  |

### **Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGl(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
Japan GHS Classification  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

**Revision date**

24-March-2021

**Revision Note**

No information available.

**Disclaimer**

**The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.**

**End of Safety Data Sheet**