STANFORD ADVANCED MATERIALS

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Name: Thallium Bromide

CAS #: 7789-40-4

Relevant identified uses of the substance: Scientific research and development

Supplier details:

Stanford Advanced Materials

E-mail: sales@samaterials.com

Tel: (949) 407-8904

Address: 23661 Birtcher Dr., Lake Forest, CA 92630 U.S.A.

SECTION 2. HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Class 6.1 Poison. Very toxic by ingestion with cumulative effects. Harmful in contact with skin. Toxic to

aquatic organisms, may cause long term adverse effects in the aquatic environment. Particular care must be exercised when machining and creating dust or particles. Dangerous for the environment.

2.2. LABEL ELEMENTS

Signal Word: Danger

H300 Fatal if swallowed

H330 Fatal if inhaled

H373 May cause damage to organs through prolonged or repeated exposure.

Signal Word: Warning

H411 Toxic to aquatic life with long lasting effects

Precautionary Statements:

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when handling this product

P273 Avoid release to the environment.P301+P310 IF SWALLOWED: Immediately call a poison centre or doctor. Rinse mouth.

P304+P312 IF INHALED: Call a poison centre or doctor/physician if you feel unwell.

2.3. OTHER HAZARDS

None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. SUBSTANCES

Component Name CAS number % EC number (EINECS) EU index UN number

Thallium Bromide 7789-40-4 100% 232-163-0 081-002-00-9 1707

SECTION 4. FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES

GENERAL: Consult a doctor for specific advice.

EYES: Irrigate thoroughly with water for at least 15 minutes. Obtain medical attention.

SKIN: Wash thoroughly with soap and water. Dry area with clean towel. Remove contaminated clothing and wash clothing before re-use.

INHALATION: Remove to fresh air. Perform artificial respiration if breathing has stopped. When breathing is difficult, properly trained personnel may administer oxygen. Keep affected person warm and at rest. Obtain medical attention.

INGESTION: Do not induce vomiting. Wash out mouth thoroughly with water and give 2 cups of water

to drink. Do not give carbonated drinks. Never give anything by mouth to an unconscious person.

Obtain medical attention immediately.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Refer to Section 2.2 and to section 11.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No Data.

SECTION 5. FIREFIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

This product does not burn.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Material may evolve toxic fumes in a fire.

5.3. ADVICE FOR FIREFIGHTERS

Use breathing apparatus if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Wear suitable protective clothing & equipment as listed under Section 8. Avoid making dust.

6.2. ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage. Do not let product enter drains. Do not discharge to the environment.

6.3. METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Take up and containerize for proper disposal. Containerize any cleaning materials used for properdisposal.

6.4. REFERENCE TO OTHER SECTIONS

Dispose as in Section 13.

SECTION 7. HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING:

Keep away from heat. Avoid contact with skin and eyes. Protect against physical damage. Avoid generating dust.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Keep away from foodstuffs. Keep away from acids and strong bases.

7.3. SPECIFIC END USES

Optical Material for Manufacture of Optical Components.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

OCCUPATIONAL EXPOSURE LIMITS (OEL) = 0.1 mg/m3 in 8 hour Time Weighted Average (TWA)

8.2. EXPOSURE CONTROLS

Protective gloves made of PVA are required. Use of a laboratory coat is suggested. Safety goggles or

safety glasses with side shields are required if there is any possibility of chipping or dust creation.

Respirators must be worn when the threshold limit is exceeded. Provide adequate general mechanical

ventilation, and local exhaust ventilation. Wash hands immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Grey/clear geometric shapes, no odour. FLASH POINT: Not Applicable

BOILING POINT (760mm Hg) Not Applicable FLAMMABILITY: Not Applicable

MELTING POINT: 460?C EXPLOSIVE PROPERTIES: Not Applicable

SPECIFIC GRAVITY: 7.453 g/mL Vapor PRESSURE: Negligible at 25?C

SOLUBILITY IN WATER: 50mg/100ml H2O at 20?C pH IN AQUEOUS SOLUTION: No data

available

SECTION 10. STABILITY AND REACTIVITY

10.1. REACTIVITY

Reacts with strong oxidising materials

10.2. CHEMICAL STABILITY

Stable under normal conditions of storage and use

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

None known

10.4. CONDITIONS TO AVOID

Can react with oxidising agents. Avoid strong acids

10.5. INCOMPATIBLE MATERIALS

Strong Mineral Acids. Strong oxidising materials

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

Thallium, Hydrogen Bromide.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Extremely toxic by ingestion, with a cumulative effect. Affects nervous system, skin and cardiovascular

system. Symptoms include vomiting, muscle pains and swelling, mental confusion and insomnia, hair

loss. Also harmful in contact with skin. Particular care must be exercised when machining and creating

dust or particles. Inhalation of dust may irritate respiratory system.

TOXIC DOSE - LD50 >24 mg/kg (oral/mouse) CARCINOGENICITY: No evidence of carcinogenic

properties.

MUTAGENICITY/TERATOGENICITY: Evidence of reproductive effects

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SECTION 12. ECOLOGICAL INFORMATION

12.1. TOXICITY

Danger to drinking water. Poisonous to Fish

12.2. PERSISTENCE AND DEGRADABILITY

No Data

12.3. BIOACCUMULATIVE POTENTIAL

No Data

12.4. MOBILITY IN SOIL

No Data

12.5. RESULTS OF PBT AND vPvB ASSESSMENT

Not required or conducted

12.6. OTHER ADVERSE AFFECTS

Do not allow product to reach groundwater, water courses, or sewage systems. Only release to environment with proper government permit.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS

Chemical residues are generally classified as special waste, and are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company.

SECTION 14. TRANSPORT INFORMATION

14.1. UN NUMBER: 1707

14.2. UN PROPER SHIPPING NAME:

Thallium Compounds, N.O.S. (Thallium Bromide).

14.3. TRANSPORT HAZARD CLASS: 6.1

14.4. PACKING GROUP: II

14.5. ENVIRONMENTAL HAZARDS: Marine Pollutant

14.6. SPECIAL PRECAUTIONS FOR USER: None

14.7. TRANSPORT IN BULK MARPOL / IBC: No Data

SECTION 15. REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS / LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

TSCA: Listed in the TSCA inventory

SARA: Listed. This product is subject to SARA section 313 reporting requirement – thallium compounds.

WHMIS: This is a controlled product under the Canadian Workplace Hazardous Materials Information

System

SECTION 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.