

THALLIUM

0077
April 2002

CAS No: 7440-28-0
RTECS No: XG3425000
UN No: 3288
EC No: 081-001-00-3

Ramor
Thallium (metal)
Tl
Atomic mass: Atomic mass: Atomic mass: 204.4

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Gives off irritating or toxic fumes (or gases) in a fire.		In case of fire in the surroundings: use appropriate extinguishing media.
EXPLOSION			
EXPOSURE		PREVENT DISPERSION OF DUST! STRICT HYGIENE!	IN ALL CASES CONSULT A DOCTOR!
Inhalation	See Ingestion.	Local exhaust or breathing protection.	Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.
Skin	MAY BE ABSORBED! See Ingestion.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.
Eyes		Safety goggles, or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Abdominal pain. Nausea. Vomiting. Headache. Weakness. Pain in the legs. Blurred vision. Loss of hair. Restlessness. Convulsions. Rapid heart beat. See Notes.	Do not eat, drink, or smoke during work. Wash hands before eating.	Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Give a slurry of activated charcoal in water to drink. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Sweep spilled substance into sealable containers. Carefully collect remainder, then remove to safe place. Do NOT let this chemical enter the environment. (Extra personal protection: P3 filter respirator for toxic particles.)	<p>EU classification T+ Symbol R: 26/28-33-53 S: (1/2-)-13-28-45-61</p> <p>UN classification UN Hazard Class: 6.1 UN Pack Group: I</p> <p>Do not transport with food and feedstuffs.</p>

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-61GT5-I	Separated from strong acids, fluorine, other halogens, food and feedstuffs.

IMPORTANT DATA

Physical State; Appearance

BLUISH-WHITE, VERY SOFT METAL. TURNS GREY ON EXPOSURE TO AIR.

Chemical dangers

Reacts with strong acids. Reacts with fluorine and other halogens at room temperature.

Occupational exposure limits

TLV: 0.1 mg/m³ as TWA (skin) (ACGIH 2001).

MAK: IIb (not established but data is available) (DFG 2005).

Routes of exposure

The substance can be absorbed into the body by inhalation of its aerosol, through the skin and by ingestion.

Inhalation risk

Evaporation at 20/C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed, especially if powdered.

Effects of short-term exposure

The substance may cause effects on the gastrointestinal tract, nervous system, kidneys and cardiovascular system. May cause hair loss and atrophy of nails. Exposure may result in death when ingested. The effects may be delayed. Medical observation is indicated.

Effects of long-term or repeated exposure

The substance may have effects on the cardiovascular system, nervous system and may cause hair loss. Animal tests show that this substance possibly causes toxicity to human reproduction or development.

PHYSICAL PROPERTIES

Boiling point: 1457/C
Melting point: 304/C

Relative density (water = 1): 11.9
Solubility in water: none

ENVIRONMENTAL DATA

The substance is toxic to aquatic organisms. Bioaccumulation of this chemical may occur along the food chain, for example in freshwater organisms. This substance may be hazardous to the environment; special attention should be given to birds and mammals. It is strongly advised that this substance does not enter the environment. The substance may cause long-term effects in the aquatic environment.

NOTES

Symptoms of acute thallium intoxication usually develop slowly; gastrointestinal symptoms (nausea, vomiting, abdominal pain) appear usually within few hours after exposure but neurological disorders and other symptoms may show after 2-5 days. Depending on the degree of exposure, periodic medical examination is indicated. Do NOT take working clothes home. See ICSC 0336 (Thallium sulfate), 1221 (Thallium carbonate).

ADDITIONAL INFORMATION

LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information