

### TETRAMETHYL AMMONIUM BROMIDE CAS No 64-20-0

## MATERIAL SAFETY DATA SHEET SDS/MSDS

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1	Product identifiers Product name	:	Tetramethyl Ammonium Bromide
	CAS-No.	:	64-20-0
1.2	2 Relevant identified uses of the substance or mixture and uses advised against		
	Identified uses	:	Laboratory chemicals, Industrial & for professional use only.
1.3	Details of the supplier of the safety data sheet		
	Company	:	Central Drug House (P) Ltd 7/28 Vardaan House New Delhi -110002 INDIA
	Telephone Email	:	+91 11 49404040 <u>care@cdhfinechemical.com</u>
1.4	Emergency telephone number		

#### Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

#### **Classification according to Regulation (EC) No 1272/2008** Acute toxicity, Oral (Category 2), H300

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 2.2 Label elements

# Labelling according Regulation (EC) No 1272/2008 Pictogram



Signal word

Dänger

Hazard statement(s) H300	Fatal if swallowed.
Precautionary statement(s) P301 + P330 + P331 + P310	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
Supplemental Hazard Statements	none

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Formula	: C <sub>4</sub> H <sub>12</sub> BrN	
Molecular weight	: 154.05 g/m	ol
CAS-No.	: 64-20-0	
EC-No.	: 200-581-2	

Hazardous ingredients according to Regulation (EC) No 1272/2008ComponentClassificationConcentration					
Tetramethylammonium bromide					
CAS-No.	64-20-0	Acute Tox. 2; H300	<= 100 %		

For the full text of the H-Statements mentioned in this Section, see Section 16.

200-581-2

#### **SECTION 4: First aid measures**

EC-No.

#### 4.1 Description of first aid measures

#### **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### **4.3 Indication of any immediate medical attention and special treatment needed** No data available

#### **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

## Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

## **5.2** Special hazards arising from the substance or mixture Carbon oxides, Nitrogen oxides (NOx), Hydrogen bromide gas

#### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### 5.4 Further information

No data available

#### **SECTION 6: Accidental release measures**

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

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

### **6.2** Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

#### **6.3** Methods and materials for containment and cleaning up Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections For disposal see section 13.

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### **SECTION 7: Handling and storage**

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

#### **7.2** Conditions for safe storage, including any incompatibilities Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

hygroscopic Storage class (TRGS 510): Combustible solids, toxic

#### **7.3** Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

#### **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

#### 8.2 Exposure controls

#### Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

#### Personal protective equipment

#### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### **Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### **Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If th full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

#### **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

	a)	Appearance	Form: crystalline Colour: white	
	b)	Odour	No data available	
	c)	Odour Threshold	No data available	
	d)	рН	No data available	
	e)	Melting point/freezing point	Melting point/range: > 300 °C - lit.	
	f)	Initial boiling point and boiling range	No data available	
	g)	Flash point	No data available	
	h)	Evaporation rate	No data available	
	i)	Flammability (solid, gas)	No data available	
	j)	Upper/lower flammability or explosive limits	No data available	
	k)	Vapour pressure	No data available	
	I)	Vapour density	No data available	
	m)	Relative density	No data available	
	n)	Water solubility	No data available	
	o)	Partition coefficient: n- octanol/water	No data available	
	p)	Auto-ignition temperature	No data available	
	q)	Decomposition temperature	No data available	
	r)	Viscosity	No data available	
	s)	Explosive properties	No data available	
	t)	Oxidizing properties	No data available	
9.2	Other safety information No data available			
SECTION 10: Stability and reactivity				
10.1	Reactivity			
	No data availabla			

No data available

- 10.2 Chemical stability Stable under recommended storage conditions.
- 10.3 Possibility of hazardous reactions No data available
- 10.4 Conditions to avoid Avoid moisture.
- 10.5 Incompatible materials Strong oxidizing agents

#### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Hydrogen bromide gas Other decomposition products - No data available In the event of fire: see section 5

#### **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - 50 mg/kg(Tetramethylammonium bromide) Remarks: Behavioral:Altered sleep time (including change in righting reflex). Behavioral:Somnolence (general depressed activity). Behavioral:Tremor.

#### Skin corrosion/irritation

No data available(Tetramethylammonium bromide)

#### Serious eye damage/eye irritation

No data available(Tetramethylammonium bromide)

#### Respiratory or skin sensitisation

No data available(Tetramethylammonium bromide)

#### No data available(Tetramethylammonium bromide)

Germ cell mutagenicity

#### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

#### **Reproductive toxicity**

No data available(Tetramethylammonium bromide)

#### Specific target organ toxicity - single exposure

No data available(Tetramethylammonium bromide)

#### Specific target organ toxicity - repeated exposure No data available

Aspiration hazard

No data available(Tetramethylammonium bromide)

#### **Additional Information**

RTECS: BS7600000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(Tetramethylammonium bromide)

#### **SECTION 12: Ecological information**

- 12.1 Toxicity No data available
- 12.2 Persistence and degradability No data available
- **12.3 Bioaccumulative potential** No data available
- 12.4 Mobility in soil No data available(Tetramethylammonium bromide)

#### **12.5** Results of PBT and vPvB assessment This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available

#### **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

#### **Contaminated packaging**

Dispose of as unused product.

#### **SECTION 14: Transport information**

14.1	<b>UN numbe</b> ADR/RID: 2	-	IMDG: 2811	IATA: 2811
14.2	UN proper shipping nameADR/RID:TOXIC SOLID, ORGANIC, N.O.S. (Tetramethylammonium bromide)IMDG:TOXIC SOLID, ORGANIC, N.O.S. (Tetramethylammonium bromide)IATA:Toxic solid, organic, n.o.s. (Tetramethylammonium bromide)			
14.3	Transport ADR/RID: 6	<b>hazard class(es)</b> ଚ.1	IMDG: 6.1	IATA: 6.1
14.4	Packaging ADR/RID: I		IMDG: II	IATA: II
14.5	Environme ADR/RID: r	<b>ental hazards</b> no	IMDG Marine pollutant: no	IATA: no
14.6	<b>Special pr</b> No data av	ecautions for user ailable		

#### **SECTION 15: Regulatory information**

**15.1** Safety, health and environmental regulations/legislation specific for the substance or mixture This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

#### **15.2 Chemical safety assessment** For this product a chemical safety assessment was not carried out

#### **SECTION 16: Other information**

#### Full text of H-Statements referred to under sections 2 and 3.

H300 Fatal if swallowed.

#### **Further information**

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. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.