

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

ACETYLENE TETRABROMIDE 98% EXTRA PURE

CAS-No.: 79-27-6

Product Code: 00048

Molecular Formula: $C_2H_2Br_4$

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

1.1. Product identifier

Product form	:	Substance
Trade name	:	Acetylene tetrabromide 98% Extra Pure
EC-No.	:	201-191-5
CAS No	:	79-27-6
Synonyms	:	1,1,2,2-Tetrabromoethane / Muthmanns liquid

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Company : Chemnovo Synthesis Pvt Ltd.
N-226 Near Kumbhavali Naka
Tarapur MIDC, Boisar-401 506
Palghar, Maharashtra
Telephone : +91 7400096089
Email: export@chemnovo.in

1.4. Emergency telephone number

Emergency number : + 91 7400096089 (9:00am – 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (inhal.), H330

Category 2

Serious eye damage/eye H319

irritation, Category 2

Hazardous to the aquatic H412

environment – Chronic

Hazard, Category 3

Full text of classification categories and H statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

T+; R26

Xi; R36

R52/53

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS06

Signal word (CLP)	:	Danger
Hazard statements (CLP)	:	H319 – Causes serious eye irritation H330 – Fatal if inhaled H412 – Harmful to aquatic life with long lasting effects
Precautionary statements (CLP)	:	P260 – Do not breathe vapours, dust, fume, gas P273 – Avoid release to the environment P284 – [In case of inadequate ventilation] wear respiratory protection P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P310 – Immediately call a doctor

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name	:	Acetylene Tetrabromide 98% Extra Pure
CAS No	:	79-27-6
EC no	:	201-191-5

Full text of R- and H-statements: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	:	Assure fresh air breathing. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	:	Wash with plenty of soap and water. Get immediate medical

First-aid measures after eye contact : advice/attention.
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Get medical advice/attention.

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

Symptoms/injuries after inhalation : Fatal if inhaled.

Symptoms/injuries after eye contact : Causes serious eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.

Unsuitable extinguishing media : Do not use extinguishing media containing water.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighter

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

6.2. Environmental precautions

Harmful to aquatic life with long lasting effects.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. On land, sweep or shovel into suitable containers.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Avoid contact with skin and eyes. Do not breathe vapours. Provide good ventilation in process area to prevent formation of vapour.
Hygiene measures	:	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Store in a well-ventilated place. Keep container tightly closed.
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7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Hand protection	:	protective gloves
Eye protection	:	Chemical goggles or safety glasses
Skin and body protection	:	Wear suitable protective clothing
Respiratory protection	:	Wear respiratory protection

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Molecular mass	:	345.67 g/mol
Colour	:	Colorless to yellowish liquid.
Odour	:	sweet pungent odor
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	> 1
Melting point	:	-1 °C
Freezing point	:	No data available
Boiling point	:	119 °C
Flash point	:	No data available
Auto-ignition temperature	:	335 °C
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	0.1 hPa at 20 °C
Relative vapour density at 20 °C	:	11.9
Relative density	:	No data available
Density	:	2.967 g/cm ³
Solubility	:	Water: Insoluble in water
Log Pow	:	1.98
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available

Explosive properties : No data available
Oxidising properties : No data available
Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Overheating. Open flame. Heat.

10.5. Incompatible materials

Oxidizing agent. Strong acids. Strong bases.

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	Oral: Harmful if swallowed.
Skin corrosion/irritation	:	Causes severe skin burns and eye damage.
Serious eye damage/irritation	:	Serious eye damage, category 1, implicit
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
Specific target organ toxicity (single exposure)	:	Not classified
Specific target organ toxicity (repeated exposure)	:	Not classified
Aspiration hazard	:	Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology – water : Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

Acetylene Tetrabromide 98%extra Pure (79-27-6)	
Persistence and degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

Acetylene Tetrabromide 98%extra Pure (79-27-6)	
Log Pow	1.98

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal : Dispose of contents/container to ...
recommendations

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / AND

14.1. UN number

UN-No. (ADR)	:	2504
UN-No. (IMDG)	:	2504
UN-No.(IATA)	:	2504
UN-No.(AND)	:	2504
UN-No. (RID)	:	2504

14.2. UN proper shipping name

Proper Shipping Name (ADR)	:	TETRABROMOETHANE
Proper Shipping Name (IMDG)	:	TETRABROMOETHANE
Proper Shipping Name (IATA)	:	TETRABROMOETHANE
Proper Shipping Name (ADN)	:	TETRABROMOETHANE
Proper Shipping Name (RID)	:	TETRABROMOETHANE
Transport document description (ADR)	:	UN 2504 TETRABROMOETHANE, 6.1, III, (E)
Transport document description (IMDG)	:	UN 2504 TETRABROMOETHANE, 6.1, III, MARINE POLLUTANT
Transport document description (IATA)	:	UN 2504 TETRABROMOETHANE, 6.1, III
Transport document description (ADN)	:	UN 2504 TETRABROMOETHANE, 6.1, III
Transport document description (RID)	:	UN 2504 TETRABROMOETHANE, 6.1, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 6.1

Danger labels (ADR) : 6.1

:



IMDG

Transport hazard class(es) (IMDG) : 6.1

Danger labels (IMDG) : 6.1

:



IATA

Transport hazard class(es) (IATA) : 6.1

Hazard labels (IATA) : 6.1

:



AND

Transport hazard class(es) (ADN) : 6.1

Danger labels (ADN) : 6.1

:



RID

Transport hazard class(es) (RID) : 6.1

Danger labels (RID) : 6.1

:



14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : III

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : Yes (IMDG only)

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : T1

Limited quantities (ADR) : 5L

Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Mixed packing provisions (ADR) : T4
instructions (ADR)

Portable tank and bulk container special provisions (ADR) : Tp1

Tank code (ADR) : L4BH

Tank special provisions (ADR) : TU15, Te19

Vehicle for tank carriage : AT

Transport category (ADR) : 2

Special provisions for carriage - Packages (ADR) : V12

Special provisions for carriage - Loading, unloading and handling (ADR) : CV13, Cv28

Special provisions for carriage - Operation (ADR) : S9

Hazard identification number (Kemler No.) : 60

Orange plates :

60

2504

Tunnel restriction code (ADR)	:	E
EAC code	:	2Z
- Transport by sea		
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	P001, Lp01
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	Tp1
EmS-No. (Fire)	:	F-A
EmS-No. (Spillage)	:	S-A
Stowage category (IMDG)	:	A
MFAG-No	:	159
- Air transport		
PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y642
PCA limited quantity max net quantity (IATA)	:	2L
PCA max net quantity (IATA)	:	60L
CAO packing instructions (IATA)	:	663
CAO max net quantity (IATA)	:	220L
ERG code (IATA)	:	6L
- Inland waterway transport		
Classification code (ADN)	:	T1
Special provisions (ADN)	:	802
Limited quantities (ADN)	:	5 L
Excepted quantities (ADN)	:	E1
Equipment required (ADN)	:	PP, EP, TOX, A
Ventilation (ADN)	:	Ve02
Number of blue cones/lights (ADN)	:	0
- Rail transport		
Classification code (RID)	:	T1
Limited quantities (RID)	:	5L
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P001, IBC03, LP01, R001
Mixed packing provisions (RID)	:	Mp19
Portable tank and bulk container instructions (RID)	:	T4
Portable tank and bulk container special		

provisions (RID)	:	Tp1
Tank codes for RID tanks (RID)	:	L4BH
Special provisions for RID tanks (RID)	:	Tu15
Transport category (RID)	:	2
Special provisions for carriage – Packages (RID)	:	W12
Special provisions for carriage – Loading and unloading (RID)	:	CW13, CW28, Cw31
Colis express (express parcels) (RID)	:	Ce8
Hazard identification number (RID)	:	60

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
 Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Acetylene tetrabromide 98% Extra Pure is not on the REACH Candidate List

Acetylene tetrabromide 98% Extra Pure is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

12th Ordinance Implementing the Federal

Immission Control Act – 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-statements:

Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation
H330	Fatal if inhaled
H412	Harmful to aquatic life with long lasting effects
R26	Very toxic by inhalation

R36	Irritating to eyes
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
T+	Very toxic
Xi	Irritant

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. Chemnovo Synthesis Pvt Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.chemnovo.in for additional terms and conditions of sale.

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