



MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Identification

1.1 Product identifiers

Product Name : 1,6-Dibromohexane
Cat No.: AC112810000; AC112810000; AC112811000; AC112815000
CAS No. : 629-03-8

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

Recommended uses : Laboratory chemicals
Uses advised against: Food, drug, pesticide or biocidal product use.

1.3 Details of the supplier of the safety data sheet

Company : Krishna Solvechem Ltd.
B/503, Shayog, S. V. Road,
Kandivali (West), Mumbai – 400067. India.
Telephone : +91-22-6123 0222
Email : exports@kscl.co.in

1.4 Emergency telephone number

Emergency Phone : +91-8657457330

SECTION 2: Hazards identification

2.1 Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity	(Category 4)
Skin Corrosion/Irritation	(Category 2)
Serious Eye Damage/Eye Irritation	(Category 2)
Specific target organ toxicity (single exposure)	(Category 3)
Target Organs - Respiratory system.	
Skin sensitization	(Category 1)

2.2 Label elements

Pictogram :



Signal word

Warning

Hazard statement (s)

Harmful if swallowed



Precautionary statement (s)

Prevention

Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation
May cause an allergic skin reaction

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Do not eat, drink or smoke when using this product
Contaminated work clothing should not be allowed out of the workplace

Inhalation :

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell

IF ON SKIN (or hair):

If skin irritation occurs: Get medical advice/attention
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse

Eyes:

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

Storage:

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



	Disposal: Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)	Toxic to aquatic life with long lasting effects

SECTION 3: Composition / information on ingredients

3.1

Component	CAS-No	Weight %
Hexane,1,6-dibromo-	629-03-8	98

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhalation :	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
In case of skin contact :	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
In case of eye contact :	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion :	Do NOT induce vomiting. Get medical attention.
4.2 Most important symptoms and effects :	May cause allergic skin reaction. Difficulty in breathing. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting
4.3 Notes to Physician :	Treat symptomatically

SECTION 5: Firefighting effects

5.1 Extinguishing media

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media:	No information available
5.2 Flash Point :	110 °C / 230 °F
Method :	No information available



Autoignition Temperature:	No information available
Explosion Limits:	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available
Specific Hazards Arising from the Chemical :	Keep product and empty container away from heat and sources of ignition.
Hazardous Combustion Products :	Carbon monoxide (CO). Carbon dioxide (CO ₂). Hydrogen halides

5.4 Protective Equipment and Precautions for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA:

Health	Flammability	Instability	Physical hazards
2	0	0	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material(e.g. sand, silica gel, acid binder, universal binder, sawdust)

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure adequate ventilation. Wear personal protective equipment/face protection. Avoid contact with skin and eyes. Do not breathe mist/vapors/spray.



7.2 Conditions for safe storage

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Incompatible Materials. Strong oxidizing agents. Strong bases.

SECTION 8: Exposure controls/personal protection

8.1 Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

8.2 Exposure controls

Personal protective equipment -

Eye protection Goggles

Hand protection Protective gloves

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly Recommended Filter type: Organic gases and vapours filter Type A Brown conforming to EN14387 When RPE is used a face piece Fit Test should be conducted

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice..

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	Form: Liquid
b) Odour	Odorless
c) Odour Threshold	No information available
d) pH	No information available
e) Melting point / freezing point	-2 °C / -28.4 °F
f) Initial boiling point and	243 °C / 469.4 °F @ 760 mmHg



boiling range	
g) Flash point	110 °C / 230 °F
h) Evaporation rate	No information available
i) Flammability (solid, gas)	Not applicable
j) Upper/lower flammability or explosive limits	No data available No data available
k) Vapour pressure	No information available
l) Vapour density	No information available
m) Specific Gravity	1.580
n) Solubility	No information available
o) Partition coefficient: n octanol/water	No data available
p) Auto-ignition temperature	No information available
q) Decomposition temperature	No information available
r) Viscosity	No information available
s) Molecular formula	C6 H12 Br2
t) Molecular Weight	243.97

SECTION 10: Stability and Reactivity

10.1 Reactive Hazard :	None known, based on information available
10.2 Chemical stability :	Stable under normal conditions.
10.3 Possibility of hazardous reactions :	None under normal processing.
10.4 Conditions to avoid :	Incompatible products.
10.5 Incompatible materials:	Strong oxidizing agents, Strong bases
10.6 Hazardous decomposition products :	Carbon monoxide (CO), Carbon dioxide (CO ₂), Hydrogen halides
10.7 Hazardous Polymerization	Hazardous polymerization does not occur



SECTION 11: Toxicological information

11.1

Information on toxicological effects

Acute toxicity:

Product Information:

Component Information

Toxicologically Synergistic Products

No information available

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

Irritation : Irritating to eyes, respiratory system and skin

Sensitization: May cause sensitization by skin contact

Carcinogenicity : The table below indicates whether each agency has Any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Hexane,1,6-dibromo-	629-03-8	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects: No information available.

Reproductive Effects: No information available.

Developmental Effects : No information available.

Teratogenicity: No information available.

STOT - single exposure : Respiratory system

STOT - repeated exposure: None known

Aspiration hazard : No information available.

Symptoms / effects,both acute and delayed: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

Endocrine Disruptor Information : No information available

Other Adverse Effects : The toxicological properties have not been fully investigated.



SECTION 12: Ecological information

12.1

Ecotoxicity:

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Hexane, 1,6-dibromo-	Not listed	LC50 = 2.5-6.1 mg/l 96h	Not listed	EC50 = 1.2mg/l 48h

12.2 Persistence and degradability: Insoluble in water. May persist based on information available

Bioaccumulation/ Accumulation No information available

12.3 Mobility: Is not likely mobile in the environment due its low water solubility.

SECTION 13: Disposal considerations

13.1 Waste treatment methods: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

14.1 UN number :

DOT : UN3082 TDG : UN3082
IATA : UN3082 IMDG/IMO : UN3082

14.2 UN proper shipping name

DOT : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
TDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
IATA : Environmentally hazardous substances, liquid, n.o.s.
IMDG/IMO : Environmentally hazardous substances, liquid, n.o.s.

14.3 Transport hazard class(es) DOT: 9 TDG : 9 IMDG: 9 IATA: 9IO

14.4 Packaging group: DOT: III TDG : III IMDG: III IATA: III

SECTION 15: Regulatory information

15.1 United states of America Inventory:

Component	CAS-No	TSCA	TSCA Inventory notification Active/Inactive	TSCA - EPA Regulatory Flags
Hexane, 1,6-dibromo-	629-03-8	X	ACTIVE	-

Legend:



TSCA - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories:

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
Hexane, 1,6-dibromo-	629-03-8	-	X	211-067-2	X	-	X	-	-

U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

15.2 U.S. State Right-to-Know Regulations:

Not applicable

U.S. Department of Transportation

Reportable Quantity (RQ): N

DOT Marine Pollutant N

DOT Severe Marine Pollutant N



U.S. Department of Homeland Security - This product does not contain the any DHS Chemicals.

Other International Regulations

Mexico – Grade No information available

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

Component	CAS-No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Hexane, 1,6-dibromo-	629-03-8	Not applicable	Not applicable	Not applicable	Not applicable

Component	CAS-No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Hexane, 1,6-dibromo-	629-03-8	Not applicable	Not applicable	Not applicable	Annex I - Y45

SECTION 16: Other information

16.1 Prepared By: Regulatory affairs
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Email: exports@kscl.co.in
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Revision Summary: This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 C FR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

16.2 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 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.