

# **MATERIAL SAFETY DATA SHEET (MSDS)**

**SECTION 1: Identification** 

1.1	Product identifiers	
	Product Name :	Methyl 2-bromohexanoate
	Cat No.:	H60165
	CAS No. :	5445-19-2
1.2	Relevant identified uses of the	ne 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 Limited. B/503, Sahayog, S. V. Road, Kandivali (West), Mumbai – 400067. India.
	Telephone :	+91-22-6123 0222
	Email :	exports@kscl.co.in
1.4	Emergency telephone numbe	er
	Emergency Phone :	+91-8657457330
	SECT	<b>FION 2: Hazards identification</b>
2.1	<b>Classification</b>	
	This chemical is considered h (29 CFR 1910.1200)	azardous by the 2012 OSHA Hazard Communication Standard
	Flammable liquids	(Category 4)
2.2	Label elements	
	Signal word	Warning
	Hazard statement (s)	Combustible liquid



## Precautionary statement (s) Prevention 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 Keep away from heat/sparks/open flames/hot surfaces. - No smoking 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 Fire In case of fire: Use CO2, dry chemical, or foam for extinction Storage: Store in a well-ventilated place.Keep cool **Disposal:** Dispose of contents/container to an approved waste disposal plant Hazards not otherwise None identified classified (HNOC)



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

3.1					
	Component	CAS-No	Weight %		
N	Nethyl 2-bromohexanoate	5445-19-2	<=100		
	SE	CTION 4: First aid measures	;		
4.1	Description of first aid measu	res			
	If inhalation : Remove to fresh air. If not breathing, give artificial respira Get medical attention if symptoms occur.				
	In case of skin contact : Wash off immediately with plenty of water for at least 1 minutes. If skin irritation persists, call a physician.				
	In case of eye contact : Rinse immediately with plenty of water, also under the e for at least 15 minutes. Get medical attention.				
	Ingestion :	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur			
4.2	Most important symptoms and effects :	symptoms Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting			
4.3	Notes to Physician : Treat symptomatically				
	SEC	CTION 5: Firefighting effects	5		
5.1	Extinguishing media				
	Suitable extinguishing media	Water spray, carbon dioxide (CC case of major fire and large qua remotely due to the risk of expl to cool closedcontainers.	ntities: Evacuate area. Fight fire		
	Unsuitable Extinguishing Media: :	No information available			
5.2	Flash Point : Method:	69 °C / 156.2 °F No information available			



Autoignition Temperature:       No information available         Explosion Limits:       No data available         Upper       No data available         Lower       No data available         Sensitivity to Mechanical       No information available         Impact       No information available         Sensitivity to Static       No information available         Discharge       Specific Hazards Arising from the Chemical :       Combustible material. Containers may explode when heated the Chemical :         Hazardous Combustion Products :       Carbon monoxide (CO). Carbon dioxide (CO2). Hydrogen bromide         5.4       Protective Equipment and Precautions for Firefighters:       As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) ar full protective gear.         NFPA:       Health       Flammability       Instability       Physical hazards										
Upper LowerNo data available No data availableLowerNo data available No information availableSensitivity to Mechanical Impact Sensitivity to Static DischargeNo information availableSpecific Hazards Arising from the Chemical : Hazardous Combustion Products :Combustible material. Containers may explode when heated bromide5.4Protective Equipment and Precautions for Firefighters:As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) ar full protective gear.NEPA:HealthFlammabilityInstabilityPhysical hazards			No informatio	n available						
LowerNo data availableLowerNo data availableSensitivity to MechanicalNo information availableImpactNo information availableSensitivity to StaticNo information availableDischargeSpecific Hazards Arising from the Chemical :Combustible material. Containers may explode when heatedHazardous Combustion Products :Carbon monoxide (CO). Carbon dioxide (CO2). Hydrogen bromide5.4Protective Equipment and Precautions for Firefighters:As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) ar full protective gear.NEPA:HealthFlammabilityInstabilityPhysical hazards		-	No data availa	blo						
Sensitivity to Mechanical Impact Sensitivity to Static DischargeNo information available No information availableSpecific Hazards Arising from the Chemical : Hazardous Combustion Products :Combustible material. Containers may explode when heated to Carbon monoxide (CO). Carbon dioxide (CO2). Hydrogen bromide5.4Protective Equipment and Precautions for Firefighters:As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) ar full protective gear.NEPA:HealthFlammabilityInstabilityPhysical hazards		••								
Impact Sensitivity to Static DischargeNo information availableSpecific Hazards Arising from the Chemical : Hazardous Combustion Products :Combustible material. Containers may explode when heated to combustion bromide (CO). Carbon dioxide (CO2). Hydrogen bromide5.4Protective Equipment and Precautions for Firefighters:As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) ar full protective gear.NFPA:HealthFlammabilityInstabilityPhysical hazards										
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Precautions for Firefighters:       pressure-demand, MSHA/NIOSH (approved or equivalent) ar full protective gear.         MFPA:       Health       Flammability       Instability       Physical hazards		Products :			. ,	, ,				
NFPA: hazards	5.4		pressure-demand, MSHA/NIOSH (approved or equ							
0 2 0 N/A		NFPA:	Health	Flammability	Instability					
<b>0 2 0 N</b>			0	2	0	N/A				
		SECTIOI	N 6: Accidenta	al release meas	ures					
SECTION 6: Accidental release measures	5.1									
SECTION 6: Accidental release measures 6.1 Personal precautions, protective equipment and emergency procedures		•			•	Remove all				
	5.2	Environmental precautions								
<ul> <li>6.1 Personal precautions, protective equipment and emergency procedures</li> <li>Ensure adequate ventilation. Use personal protective equipment as required. Remove all sources of ignition. Take precautionary measures against static discharges</li> </ul>		Should not be released into th	e environment.	See section 12 fo	r additional Eco	logical				
<ul> <li>5.1 Personal precautions, protective equipment and emergency procedures</li> <li>Ensure adequate ventilation. Use personal protective equipment as required. Remove all sources of ignition. Take precautionary measures against static discharges</li> </ul>						2				

# Information

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Remove all sources of ignition.

## SECTION 7: Handling and storage

## 7.1 Precautions for safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition.



## 7.2 Conditions for safe storage

Keep away from heat, sparks and flame. Keep container tightly closed in adry and wellventilated place.

## **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**

None under normal use conditions. Ensure adequate ventilation, especially in confined areas.

#### 8.2 Exposure controls

#### Personal protective equipment -

#### Eye / Face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

#### Skin protection and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

#### **Respiratory protection**

No protective equipment is needed under normal use conditions

#### **Hygiene Measures**

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

SECTION 9: Physical and chemical properties							
Information on basic physical and chemical properties							
a) Appearance Colorless clear Liquid							
b) Odour No information available							
c) Odour Threshold	No information available						
d) pH	No information available						
e) Melting point / freezing No information available point							
f) Initial boiling point and	185 °C						
	Information on basic physica a) Appearance b) Odour c) Odour Threshold d) pH e) Melting point / freezing point						



boiling range	
g) Flash point	69 °C / 156.2 °F
h) Evaporation rate	No information available
i) Flammability (solid, gas)	Not applicable
j) Upper/lower	No data available
flammability or	No data available
explosive limits	
k) Vapour pressure	1033 hPa @ 91 °C
l) Vapour density	1.29
m) Specific Gravity	1.289 g/cm3
n) Solubility	Soluble in water
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	C7 H13 BrO2
t) Molecular Weight	209.08

# 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 :	Keep away from open flames, hot surfaces and sources of ignition.
10.5	Incompatible materials:	Oxidizing agent
10.6	Hazardous decomposition products :	Carbon monoxide (CO), Carbon dioxide (CO2), Hydrogen bromide
10.7	Hazardous Polymerization	Hazardous polymerization does not occur



# SECTION 11: Toxicological information

11.1									
	rmation on toxic	ological of	focts						
	te toxicity:	ological el	lects						
	duct Information:								
	ponent Informat								
Component LD50 Oral					D50 Dermal	LCS	50 Inhalation		
Methyl 2- Not listed					LD50 > 2000 mg/kg	No	t listed		
	bromohexanoate				(Rat)				
ΟΧΙ	cologically Syner	-			formation availa				
	Delayed and in	nmediate	effects as wo	ell as chroni	<u>c effects from s</u>	hort and lon	<u>g-term expos</u>	<u>ure</u>	
Irritation :					formation availa	able			
Sensitization:					formation availa	able			
	Carcinogenicity	<i>;</i> :		The ta	able below indic	ates whethe	r each agency	ha	
					ngredient as a c		0,		
	Component CAS-No IARC				ACGIH	OSHA	Mexico		
	Methy 2-	5445-	Not listed	Not	Not listed	Not listed	Not listed		
	bromohexanoa te	19-2		listed	sted				
	Mutagenic Effe	ects:		No info	No information available.				
	Reproductive E	ffects:		No info	No information available.				
	Developmenta	l Effects :		No info	No information available.				
	Teratogenicity			No info	No information available.				
	STOT - single ex	xposure :		None kr	None known				
	STOT - repeate	d exposur	e:	None kr	None known				
	Aspiration haza	ard :		No info	No information available.				
Symptoms / effects,both acute and delayed:				sympto	Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting				
	Endocrine Disr	uptor Info	rmation :	No info	No information available				
	Other Adverse	Effects :		The toxi investig	icological prope	rties have no	ot been fully		



12.1		
	xicity:	Do not empty into drains.
12.2	Persistence and degradab	ility: No information available
	Bioaccumulation/ Accumulation	No information available
12.3	Mobility:	No information available
	SE	CTION 13: Disposal considerations
12.4.1		CTION 13: Disposal considerations
	<b>Waste treatment methods</b> chemical is classified as a	CTION 13: Disposal considerations Chemical waste generators must determine whether a discarded hazardous waste. Chemical waste generators must also consult loca ardous waste regulations to ensure complete and accurate
	<b>Waste treatment methods</b> chemical is classified as a regional, and national haz classification.	: Chemical waste generators must determine whether a discarded hazardous waste. Chemical waste generators must also consult loca ardous waste regulations to ensure complete and accurate
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	Waste treatment methods chemical is classified as a regional, and national haz classification. SE DOT :	<ul> <li>Chemical waste generators must determine whether a discarded hazardous waste. Chemical waste generators must also consult loca ardous waste regulations to ensure complete and accurate</li> <li>CCTION 14: Transport information</li> <li>COMBUSTIBLE LIQUID, NOT REGULATED FOR TRANSPORT IN THIS QUANTITY</li> <li>According to 49 CRF §173.150(f)(1), this material should have reclassified as NA1993, Combustible Liquid, NOS if it is shipped in bulk.</li> </ul>
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## **SECTION 15: Regulatory information**

## **15.1 United states of America Inventory:**

Component	CAS-No	TSCA	TSCA Inventory notification Active/Inactive	TSCA - EPA Regulatory Flags
Methyl 2-	5445-	Х	INACTIVE	PMN
bromohexanoate	19-2			



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), Japan(ISHL), Australia(AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Methyl 2-	5445	-	Х	226-643-9	-	х	Х	-	Х	-
bromohexanoate	-19-2									

## **U.S. Federal Regulations**

SARA 313	Not applicable
SARA 311/312 Hazard Categories	See section 2 for more information

CWA (Clean Water Act)

**Clean Air Act** 

**OSHA** - Occupational Safety and Health Administration

## CERCLA

This product does not contain any Proposition 65

Not applicable

Not applicable

Not applicable

Not applicable

**California Proposition 65** chemicals.

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

Not applicable

## **U.S. Department of Transportation**

Reportable Quantity (RQ):NDOT Marine PollutantNDOT Severe Marine PollutantN



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

### **Other International Regulations**

Mexico – Grade

No information available

## **SECTION 16: Other information**

Regulatory affairs Krishna Solvechem

exports@kscl.co.in

Limited

Email:

Revision Date: Print Date: Revision Summary: 19-Mar-2023 19-Mar-2023 This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under29 C F R 1910.1200 to align with the Globally Harmonized System ofClassification 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.