



## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1: Identification

#### 1.1 Product identifiers

**Product Name :** Isopropyl 2-bromoisobutyrate

**CAS No. :** 51368-55-9

#### 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 Limited.  
B/503, Shayog, S. V. Road,  
Kandivali (West), Mumbai – 400067. India.

**Telephone :** +91-22-6123 0222

**Email :** [exports@kscl.co.in](mailto: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)

Skin Corrosion/Irritation	(Category 2) H315
Serious Eye Damage/Eye Irritation	(Category 2) H319
Specific target organ toxicity (single exposure)	(Category 3) H335

#### 2.2 Label elements

**Pictogram :**



**Signal word**

Warning



**Hazard statement (s)**

**H315** Causes skin irritation

**H319** Causes serious eye irritation

**H335** May cause respiratory irritation

**Precautionary statement (s)**

**P302 + P352**

IF ON SKIN: Wash with plenty of soap and water

**P304 + P340**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

**P305 + P351 + P338**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**OSHA Hazards**

This material is considered hazardous by the OSHA Hazard Communication standard (29 CFR 1910.1200)

**Other Hazards**

None known



### SECTION 3: Composition / information on ingredients

#### 3.1

Component	CAS-No	Weight %
Isopropyl 2-bromo-2-methylpropionate	51368-55-9	>=90 - <=100

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

<b>If inhalation :</b>	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
<b>In case of skin contact :</b>	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
<b>In case of eye contact :</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Ingestion :</b>	Never give anything by mouth to an unconscious person. After swallowing: immediately make victim drink water (2 glasses at most). Consult a physician.

**4.2 Most important symptoms and effects :** Irritant effects, Cough, shortness of breath. Indication of any immediate medical attention and special treatment needed.

**4.3 Notes to Physician :** Treat symptomatically

### SECTION 5: Firefight effects

#### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	Water, carbon dioxide (CO <sub>2</sub> ), dry powder, foam.
<b>Unsuitable Extinguishing Media</b>	For this substance/mixture no limitations of extinguishing agents are given.

**5.2 Flash Point :** 63 °C / 145 °F  
**Method :** No information available



<b>Autoignition Temperature:</b>	No information available
<b>Explosion Limits:</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available
<b>Specific Hazards Arising from the Chemical :</b>	Combustible material, Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air at elevated temperatures. Development of hazardous combustion gases or vapors possible in the event of fire. Fire may cause evolution of: hydrogen bromide
<b>5.4 Protective Equipment and Precautions for Firefighters:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
<b>5.5 Further Information:</b>	Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## SECTION 6: Accidental release measures

<b>6.1 Personal precautions, protective equipment and emergency procedures</b>	Ensure adequate ventilation. Advice for non –emergency personnel: Avoid substance contact. Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert.
<b>6.2 Environmental precautions</b>	Do not empty into drains
<b>6.3 Methods and materials for containment and cleaning up</b>	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material. Dispose of properly. Clean up affected area.

## SECTION 7: Handling and storage

<b>7.1 Precautions for safe handling</b>	Observe label precautions.
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## 7.2 Conditions for safe storage

Tightly closed. Store at +15°C to +25°C (+59°F to +77°F).

## SECTION 8: Exposure controls/personal protection

### 8.1 Exposure Limit(s)

Contains no substances with occupational exposure limit values.

#### Engineering Measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

#### Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

#### Personal protective equipment -

##### Eye / Face protection

Safety glasses.

##### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

##### Respiratory protection

required when vapors/aerosols are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

##### 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	Colorless Liquid
b) Odour	Characteristic
c) Odour Threshold	No information available
d) pH	No information available
e) Melting point / freezing point	No information available
f) Initial boiling point and	338 °F ( 170 °C)



<b>boiling range</b>	
<b>g) Flash point</b>	145 °F ( 63 °C)
<b>h) Evaporation rate</b>	No information available
<b>i) Flammability (solid, gas)</b>	No information available
<b>j) Upper/lower flammability or explosive limits</b>	No data available No data available
<b>k) Vapour pressure</b>	No information available
<b>l) Vapour density</b>	5.76 at 68 °F ( 20 °C)
<b>m) Relative density</b>	1.24 g/cm <sup>3</sup> at 68 °F ( 20 °C)
<b>n) Solubility</b>	Insoluble in water at 68 °F ( 20 °C)
<b>o) Partition coefficient: n octanol/water</b>	Log Pow: 2.5 (calculated) (Lit.) Bioaccumulation is not expected (log Pow <1)
<b>p) Auto-ignition temperature</b>	No information available
<b>q) Decomposition temperature</b>	No information available
<b>r) Viscosity</b>	No information available
<b>s) Molecular formula</b>	C7 H13 BrO2
<b>t) Molecular Weight</b>	209.08 g/mol

### SECTION 10: Stability and Reactivity

<b>10.1 Reactive Hazard :</b>	Vapor/air-mixtures are explosive at intense warning.
<b>10.2 Chemical stability :</b>	The product is chemically stable under standard ambient conditions (room temperature)
<b>10.3 Possibility of hazardous reactions :</b>	Violent reactions possible with : Metals, bases, strong alkalis
<b>10.4 Conditions to avoid :</b>	Heating. A range from approx. 15 kelvin below the flash point is to be rated as critical.
<b>10.5 Incompatible materials:</b>	No information available
<b>10.6 Hazardous decomposition products :</b>	In the event of fire : See section 5
<b>10.7 Hazardous Polymerization</b>	No information available



## SECTION 11: Toxicological information

### 11.1

#### Information on toxicological effects

#### Likely route of exposure :

Eye contact, skin contact

#### Acute oral toxicity

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

#### Acute inhalation toxicity

Symptoms: mucosal irritations, Cough, Shortness of breathIrritating to respiratory system.

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

<b>Irritation :</b>	Causes skin and serious eye irritation
<b>Sensitization:</b>	No information available
<b>Carcinogenicity :</b>	The table below indicates whether each agency has Any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Isopropyl 2-bromo-2methylpropionate	51368-55-9	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:** The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Aspiration hazard :** No information available.

**Further Information :** Quantitative data on the toxicity of this product are not available.

**Further data :** Other dangerous properties can not be executed



## SECTION 12: Ecological information

<b>12.1 Ecotoxicity:</b>	No information available
<b>12.2 Persistence and degradability:</b>	No information available
<b>Bioaccumulation/ Accumulation</b>	Partition coefficient: n-octanol/water log Pow: 2.5 (Calculated)(Lit.)Bioaccumulation is not expected (log pow <1)
<b>12.3 Mobility:</b>	No information available

## 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

<b>14.1 DOT :</b>	Not regulated
<b>IMDG :</b>	Not regulated
<b>IATA :</b>	
<b>UN No :</b>	UN3334
<b>Shipping Name :</b>	AVIATION REGULATED LIQUID, N.O.S.
<b>Class :</b>	9
<b>Packing group :</b>	III

## SECTION 15: Regulatory information

### 15.1 United states of America Inventory:

OSHA Hazards, Combustible liquid, skin irritant, Eye irritant, Respiratory irritant

This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.





**U.S. Federal Regulations**

**SARA 313**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazard Categories**

Fire hazard. Acute health Hazard

**CWA (Clean Water Act)**

This product does not contain any Hazardous Substances listed under the U.S. Clean Water Act, Section 311,

**DEA List I**

Not applicable

**DEA List II**

Not applicable

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

Not applicable

**Notification status:**

**TSCA :**

Not Listed on TSCA inventory. For Research and Development Use only. Not For Manufacturing or Commercial Purposes.

**DSL :**

This product contains one or several components that are not on the Canadian DSL nor NDSL.



## SECTION 16: Other information

### 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.