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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name: ISO BUTYL ACETATE FOR SYNTHESIS

Product code: 60195

Identification of the product: ISO BUTYL ACETATE

CAS No:110-19-0

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

Use: Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification: MOLYCHEM

Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA) Tel:

+91 22 4066 8111, 2205 7772 . Fax: +91 22 2203 4442.

Email: info@molychem.net

Works: Plot No. B/9, Badlapur M.I.D.C., OPP. Shobhavat Textile Co.,

Kulgaon, Badlapur (E), Dist.-Thane-421 503.

1.4. Emergency telephone number

Emergency number: +91 22 4066 8111 (10:00am - 6:00 pm).

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification: F; R11

R66

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Physical hazards: Flammable liquids - Category 2 - Danger (CLP: Flam. Liq. 2) H225

2.2. Label elements

Labelling EC 67/548 or EC 1999/45 Symbol(s): F: Highly flammable



R Phrase(s): R11: Highly flammable.

R66: Repeated exposure may cause skin dryness or cracking.

S Phrase(s): S16: Keep away from sources of ignition - No smoking.

S23 : Do not breathe the gas, fumes, vapours, spray.

S25 : Avoid contact with eyes. S29 : Do not empty into drains.

S33: Take precautionary measures against static discharges.

Labelling Regulation EC 1272/2008 (CLP)

MOLYCHEM Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA) Tel: +91 22 4066 8111, 2205 7772 . Fax: +91 22 2203 4442. Email: info@molychem.net Works: Plot No. B/9, Badlapur M.I.D.C.,OPP.Shobhavat Textile Co., Kulgaon, Badlapur (E), Dist.-Thane-421 503

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Hazard pictograms



Signal words: Danger

Hazard statements: H225: Highly flammable liquid and vapour.

Precautionary statements

• **Prevention**: P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical, ventilating, lighting, ..., equipment.

P210: Keep away from heat, sparks, open flames or hot surfaces. – No smoking.

P280: Wear protective gloves, protective clothing, eye protection, face protection.

P233: Keep container tightly closed.

• **Response**: P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.

P370+P378: In case of fire: Use for extinction.

• Storage: P403+P235: Store in well-ventilated place. Keep cool.

• **Disposal considerations**: P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Other hazards: The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

3. Composition/information on ingredients

Substance / Preparation : ISO BUTYL ACETATE

CAS No:110-19-0

Substance.

Contains no other components or impurities which will influence the classification of the product.

4. First aid measures

4.1. Description of first aid measures

Inhalation: Assure fresh air breathing. Allow the victim to rest.

Skin contact: Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing.

Eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

Ingestion: Obtain emergency medical attention. Rinse mouth. Do NOT induce vomiting.

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

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Symptoms relating to use: Repeated exposure may cause skin dryness or cracking. **4.3. Indication of any immediate medical attention and special treatment needed General information**: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures

5.1. Extinguishing media

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

Unsuitable extinguishing media: Do not use a heavy water stream.

Surrounding fires: Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Flammable class: Highly flammable liquid and vapour.

Hazardous combustion products: Under fire conditions, hazardous fumes will be present.

5.3. Advice for fire-fighters

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

Special procedures: Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders: Equip cleanup crew with proper protection.

Ventilate area.

Technical measures: Use special care to avoid static electric charges.

Special precautions: Remove ignition sources. No naked lights. No smoking.

For non-emergency personnel: Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions: Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Clean up methods: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Store away from other materials. Collect spillage.

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and storage

7.1. Precautions for safe handling

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Handling: Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Handle empty containers with care because residual vapours are flammable.

Technical protective measures: Provide good ventilation in process area to prevent formation of vapour. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical, ventilating, lighting, ..., equipment.

Special precautions: No naked lights. No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage: Keep only in the original container in a cool, well ventilated place. Keep in fireproof place. Keep container tightly closed. Ground/bond container and receiving equipment.

Storage - away from: Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)
Specific end use(s): None.

8. Exposure controls/personal protection

8.1. Exposure controls

Personal protection: Avoid all unnecessary exposure.

- **Respiratory protection**: Wear approved mask.
- Hand protection : Wear protective gloves.
- Eve protection : Chemical goggles or safety glasses.
- Others: When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits: No data available.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state at 20 °C : Liquid. Odour threshold : No data available.

pH value: No data available.
Melting point [°C]: -78 °C

Decomposition point [°C]: N/A

Critical temperature [°C]: N/A

Auto-ignition temperature [°C]: 421 °C

Flammability (solid, gas): Highly flammable liquid and vapour.

Flammable.

Flash point $[^{\circ}C]$: 23 $^{\circ}C$

Boiling point [°C] : 124 - 126 °C

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Initial boiling point [°C] : 124°C **Final boiling point** [°C] : 126 °C

Evaporation rate: 1,5

Vapour pressure [20°C]: 20 hPa at 20 °C

Vapour pressure mm/Hg: N/A

Vapour density: 4 Density [g/cm3]: 0,871

Relative density, gas (air=1): 4,01 Relative density, liquid (water=1): N/A

Solubility in water [% weight]: Partially soluble.

Solubility in water: N/A

Log Pow octanol / water at 20°C : No data available.

Solubility: 7

Viscosity at 40°C [mm2/s]: N/A

9.2. Other information Explosive properties : N/A

Explosion limits - upper [%]: 7,60% Explosion limits - lower [%]: 1,70% Oxidising properties: No data available.

10. Stability and reactivity

10.1. Reactivity

Reactivity: Not established. **10.2. Chemical stability**

Chemical stability: Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions Hazardous reactions : Not established.

10.4. Conditions to avoid

Conditions to avoid: Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

Materials to avoid: Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products: Fumes. Carbon monoxide. Carbon dioxide.

May release flammable gases.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity

• Inhalation : Based on available data, the classification criteria are not met.

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• **Dermal**: Based on available data, the classification criteria are not met.

• **Ingestion** : Based on available data, the classification criteria are not met.

Corrosion: Based on available data, the classification criteria are not met.

Irritation: Repeated exposure may cause skin dryness or cracking.

Sensitization: Based on available data, the classification criteria are not met. **Mutagenicity**: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Toxic for reproduction: Based on available data, the classification criteria are not met. **STOT-single exposure**: Based on available data, the classification criteria are not met.

STOT-repeated exposure: Based on available data, the classification criteria are not met

Aspiration hazard: Based on available data, the classification criteria are not met.

12. Ecological information

12.1. Toxicity

Toxicity information: Not established.

12.2. Persistence - degradability

Persistence - degradability : Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: Not established.

12.4. Mobility in soil

Mobility in soil: Not established.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment: The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6. Other adverse effects

Environmental precautions: Avoid release to the environment.

13. Disposal considerations

13.1. Waste treatment methods

General: Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Special precautions: Handle empty containers with care because residual vapours are flammable.

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14. Transport information

14.1. Land transport (ADR-RID)

Proper shipping name: ISOBUTYL ACETATE

UN N°: 1213 H.I. nr: 33 ADR - Class: 3

Labelling - Transport: 3: Flammable liquid.

ADR - Classification code: F1

ADR - Group : II

ADR - Packing instructions: P001 R001

ADR - Limited Quantity: 1 L

ADR - Tunnel code: D/E: Bulk or tank carriage: Passage forbidden through tunnels of category D and E. Other carriage: Passage forbidden through tunnels of category E.

14.2. Sea transport (IMDG) [English only] Proper shipping name: ISOBUTYL ACETATE

UN N°: 1213

IMO-IMDG - Class or division: 3: Flammable liquid.

IMO-IMDG - Packing group: II

IMO- IMDG - Packing instructions: P001 IMO-IMDG - Limited quantities: 1 L IMO-IMDG - Marine pollution: No

EMS-Nr : F-E S-D

14.3. Air transport (ICAO-IATA) [English only] **Proper shipping name**: ISOBUTYL ACETATE

UN N°: 1213

IATA - Class or division: 3 : Flammable liquid.

IATA - Packing group: II

IATA - Passenger and Cargo Aircraft : ALLOWED

- Passenger and Cargo - Packing: 353

instruction

- Passenger and Cargo - Maximum : 5 L

Quantity/Packing

IATA - Cargo only : ALLOWED

- Cargo only - Packing instruction : 364- Cargo only - Maximum Quantity/ : 60 L

Packing

IATA - Limited Quantites: 1 L

ERG-Nr: 3L

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15. Regulatory information

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

Safety, health and environmental: Ensure all national/local regulations are observed. **regulations/legislation specific for the substance or mixture**

REACH Restrictions - Annex XVII: The components of this product are not subject to restrictions.

REACH Authorisation - Annex XIV: The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment: It has not been carried out.

16. Other information

Abbreviations and acronyms: PBT: persistent, bioaccumulative and toxic.

vPvB: very persistent and very bioaccumulative

Sources of key data used: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 **Further information**: None.

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End of document

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