SAFETY DATA SHEET

Product Name: Isobutyl Acetate

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Edit institution: Ningbo Yongshun Fine Chemical Co.,LTD.

Editor: Ningbo Yongshun Fine Chemical Co.,LTD



1. Identification

Product Name Isobutyl acetate
Chemical Name Isobutyl acetate

Product use Solvent

Supplier Name: NINGBO YONGSHUN FINE CHEMICAL CO.,LTD.

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2. Hazards Identification

GHS Label



Signal words Danger

Hazard statements H225 Highly flammable liquid and vapour

Precautionary Statement P210 Keep away from heat/sparks/open flames/hot surfaces.

--No smoking

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241Use explosion-proof electrical/ventilating/lighting/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair):Remove/Take off. Immediately all

contaminated clothing. Rinse skin with water/shower.

P370+P378 In case of fire: Use foam, dry chemical, carbon dioxide(CO₂),

water spray for extinction.

P403+P235 Store in a well-ventilated place, keep cool.

P501 Dispose of contents/container in according with local regulation.

3. Composition/Information on Ingredients

| Component | CAS number | EINECS number | Mass(%) |
|------------------|------------|----------------------|---------|
| Isobutyl acetate | 110-19-0 | 203-745-1 | 99.2% |

4. First-aid measures

NOTE TO PHYSICIAN In case of shortness of breath, give oxygen. Keep victim warm.

Keep victim under observation.

After inhalation Move to fresh air. Oxygen or artificial respiration if needed. Get immediate

medical attention.

After skin contact Immediately flush skin with plenty of water. Remove and isolate contaminated clothing and shoes. If irritation persists, get medical attention immediately. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before use.

After eye contact Immediately flush eyes with plenty of water for at least 15minutes. Assure adequate flushing of eyes by separating the eyelids with fingers. Get medical attention immediately.

After ingestion Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Loosen tight clothing such as a collar, tie, belt or waistband. Do not use mouth-to-mouth method if victim ingested the substance. Seek immediate medical attention.

5. Fire-fighting measures

Suitable extinguishing agents Foam, dry chemical, carbon dioxide(CO₂), water spray.

Special hazards caused by the material, its products of combustion or flue gases Can be released in case of

fire: Carbon monoxide (CO), carbon dioxide(CO2).

Protective equipment Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

6. Accidental release measures

Person-related safety precautions Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering. Keep unnecessary personnel away.

Measures for environmental protection material to be released to the environment without proper governmental permits.

Measures for cleaning/collecting Pick up and arrange disposal in suitable container. Clean contaminated surface thoroughly.

Additional information See Section 7 for information on safe handling.

See section8 for information on personal protection equipment. See section13 for information on disposal.

7. Handling and storage

Handling

Information for safe handling Avoid contact with skin, eyes, mucous membranes and clothing. In case of insufficient ventilation, wear suitable respiratory equipment if ingested.

Information about protection against explosion and fires Keep away from heat, sources of ignition, sparks

or open flame.

STORAGE

Requirements to be met by storerooms and containers

tightly closed until used.

Information about storage in one common storage facility strong acids and strong bases, strong oxidizing agents.

Further information about storage conditions

Keep in a cool, dry, well-ventilated place. Keep

Store away from incompatible substances such as

8. Exposure controls/ personal protection

Limited Values for Exposure CAS number ACGIH TLV-TWA ACGIH TLV-STEL ACGIH TLV-TWA NIOSH PEL-STEL

COMPONENTS

Isobutyl acetate 110-19-0 150ppm N.E. 150ppm N.E.

General protective and hygienic measures Do not use this material in contact with skin. Do not get this material on clothing. Avoid contact with eyes. Handle in according with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

No data

Personal protective equipment

Breathing equipment When workers are facing high concentrations they must use appropriate certified

respirators.

Protection of hands Wear appropriate chemical resistant gloves.

Body protection Use clean protective body-covering as needed to minimize contact with clothing

and skin.

Note:1.N.E. means not established.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance(physical state, color etc) Colorless and clear liquid

Odour fruity odour
PH Not applicable
Melting point <-90°C

Boiling point 117° C(1013hpa)

Flash point 22°C (1013hpa)-closed cup

Evaporation rate Not applicable Flammability Flammable

Upper/lower flammability or explosive limits
Not applicable

Vapor pressure $21hpa(20^{\circ}C)$ Vapor density (air=1)>4(vs air)Relative density $871kg/m^3(20^{\circ}C)$ Solubility(water) $5.6g/L(20^{\circ}C)$ Partition coefficientNot applicable

n-octanol/water

Auto-ignition $430^{\circ}\text{C}(1019\text{hpa})$

Temperature

Decomposition Not applicable

Temperature

Surface tension $62.5 \text{mN/m} (20 ^{\circ}\text{C})$ Viscosity $0.8 \text{mm}^2/\text{s} (20 ^{\circ}\text{C})$

10. Stability and reactivity

Chemical stability This is a stable chemical under recommended storage conditions.

Possibility of hazardous reactions Vapors may form explosive mixture with air.

Condition to avoid(e.g. static discharge, shock or vibration) In compatible materials. Avoid contact with heat, sparks, open flame, and static discharge. Avoid any sources of ignition.

Incompatible materials Avoid contact with strong acids and strong bases, strong oxidizing agents.

Hazardous decomposition products Carbon monoxide(CO), carbon dioxide(CO₂).

11. Toxicological information

Routes of Entry: Dermal contact, eye contact, inhalation, ingestion.

Acute Toxicity

Isobutyl acetate: LD50(Oral, rat):13413 mg/kg bw

(CAS 110-19-0) LD50(Dermal, rabbit): >17400mg/kg bw

Skin corrosion/Irritation Not classified
Serious eye Not classified

Damage/irritation

Respiratory or skin Not classified

sensitization

Germ cell mutagenicity Not classified Not classified Carcinogenicity Not classified Reproductive toxicity Not classified STOT-single exposure Not classified STOT-repeated exposure Not classified Aspiration hazard Not classified Chronic Effects Not classified **Further Information**

12. Ecological Information

Ecotoxicity

Aquatic Toxicity Isobutyl acetate(CAS110-19-0)

Test &Species

96Hr LC50 fish: N/A 48Hr EC50 Daphnia:N/A 72 HrEC50 algae:N/A

Additional Information Not available

13.Disposal considerations

WASTE DISPOSAL INSTRUCTIONS

Contact a licensed professional waste disposal service to dispose of this material.

Dispose of in accordance with local environmental regulations or local authority

requirements.

14. Disposal considerations

The Recommendation of Transport of Dangerous Goods(TDG)

UN Number UN 1213

Proper Shipping Name ISOBUTYL ACETATE
Class/Division Class 3 Flammable Liquids

Package Group PG II
Subsidiary risk None
Marine Pollutant No

Maretime transport IMDG Being same with TDG Air transport ICAO-TI and Being same with TDG

IATA-DGR

15. Regulatory information

EUROPEAN/INTERNATIONAL REGULATIONS

OSHA: Hazardous by definition of Hazard Communication

Standard(29CFR1910.1200)

EINECS Status: This chemical is included in EINECE inventory.

EPA TSCA Status: This chemical is included in TSCA inventory.

CANADIAN This chemical is included in DSL

DSL(DOMESTIC SUBSTANCE LIST):

HMIS(HAZARDOUS MATERIAL IDENTIFACATION SYSTEM RATINGS): Health:0

Flammability:3 physical hazard:0 personal hazard :H(4.Severe Hazard;3.Serious Hazard; 2.

Moderate hazard; 1. Slight hazard; 0. Minimal hazard)

WHMIS(CANADIAN WORKPLACE HAZARDOUS MATERIAL IDENTIFICATION SYSTEM RATING): GB 12268-2005 LIST OF DANGEROUS GOODS: This chemical is a dangerous goods on the GB12268-2005 list of dangerous goods.

16. OTHER INFORMATION

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Abbreviations and acronyms ADR: European Agreement concerning the International Carriage of Dangerous

Goods by Road

RID: Regulations Concerning the International Transport of Dangerous

Goods by Rail.

IMDG: International Maritime Codes for Dangerous Goods.

IATA-DGR: Dangerous Goods Regulations by the "International Air

Transport Association"(IATA)

ICAO-TT: Technical instructions by the :International Civil Aviation

Organization"(ICAO)

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service LC50: Lethal concentration,50percent

LC50: Lethal dose,50 percent

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EDIT STANDARD Globally Harmonized System of Classification and Labeling for Chemical part1.5

REVISED INSTITUTION NINGBO YONGSHUN FINE CHEMICAL CO.,LTD.

