# OTTO CHEMIE PVT LTD

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----------ISO 9001: 2015----------

## MATERIAL SAFETY DATA SHEET

**Identification**
**Isoamyl acetate, 98%**
**Code: I 1535**

**2.Hazard identification**
**2.1Classification of the substance or mixture**
Flammable liquids, Category 3
**2.2GHS label elements, including precautionary statements**
**Pictogram(s)**

| | |
|---|---|
| **Signal word** | Warning |
| **Hazard statement(s)** | H226 Flammable liquid and vapour |
| **Precautionary statement(s)** | |
| **Prevention** | P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.<br>P233 Keep container tightly closed.<br>P240 Ground and bond container and receiving equipment.<br>P241 Use explosion-proof [electrical/ventilating/lighting/...] equipment.<br>P242 Use non-sparking tools.<br>P243 Take action to prevent static discharges.<br>P280 Wear protective gloves/protective clothing/eye protection/face protection. |
| **Response** | P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].<br>P370+P378 In case of fire: Use ... to extinguish. |
| **Storage** | P403+P235 Store in a well-ventilated place. Keep cool. |
| **Disposal** | P501 Dispose of contents/container to ... |

**2.3Other hazards which do not result in classification**
none

**3.Composition/information on ingredients**
**3.1Substances**

| Chemical name | Common names and synonyms | CAS number | EC number | Concentration |
|---|---|---|---|---|
| isoamyl acetate | isoamyl acetate | 123-92-2 | none | 100% |

**4.First-aid measures**
**4.1Description of necessary first-aid measures**
**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance.
**If inhaled**
Fresh air, rest. Refer for medical attention.
**In case of skin contact**
Remove contaminated clothes. Rinse skin with plenty of water or shower.
**In case of eye contact**
First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.
**If swallowed**
Rinse mouth. Give one or two glasses of water to drink. Refer for medical attention .
**4.2Most important symptoms/effects, acute and delayed**
VAPOR: Irritating to eyes, nose and throat. If inhaled, will cause nausea, headache or dizziness. LIQUID: Irritating to skin and eyes. Harmful if swallowed. (USCG, 1999)
**4.3Indication of immediate medical attention and special treatment needed, if necessary**
Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR as necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. /Esters and related compounds/

**5.Fire-fighting measures**
**5.1Extinguishing media**
**Suitable extinguishing media**
use alcohol foam, carbon dioxide, dry chemical.
**5.2Specific hazards arising from the chemical**
FLAMMABLE. Flashback along vapor trail may occur. Vapor may explode if ignited in an enclosed area. When heated emits acrid fumes. When exposed to flames can react vigorously with reducing materials. (USCG, 1999)
**5.3Special protective actions for fire-fighters**
Wear self-contained breathing apparatus for firefighting if necessary.

**6.Accidental release measures**
**6.1Personal precautions, protective equipment and emergency procedures**
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.
**6.2Environmental precautions**
Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.
**6.3Methods and materials for containment and cleaning up**
Prevent leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided... Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

**7.Handling and storage**
**7.1Precautions for safe handling**
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.
**7.2Conditions for safe storage, including any incompatibilities**
Fireproof. Separated from strong oxidants.Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**8.Exposure controls/personal protection**
**8.1Control parameters**
**Occupational Exposure limit values**
Recommended Exposure Limit: 10 Hour Time-Weighted Average: 100 ppm (525 mg/cu m).
**Biological limit values**
no data available
**8.2Appropriate engineering controls**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
**8.3Individual protection measures, such as personal protective equipment (PPE)**
**Eye/face protection**
Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
**Skin protection**
Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique(without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
**Respiratory protection**
Wear dust mask when handling large quantities.
**Thermal hazards**
no data available

**9.Physical and chemical properties**

| | |
|---|---|
| **Physical state** | colourless liquid with a smell of bananas |
| **Colour** | Colorless neutral liquid |
| **Odour** | Pear-like odor |
| **Melting point/ freezing point** | 205\u00b0C(dec.)(lit.) |
| **Boiling point or initial boiling point and boiling range** | 142\u00b0C/756mmHg(lit.) |
| **Flammability** | Class IC Flammable Liquid: Fl.P. at or above 22.78\u00b0C and below 37.78\u00b0C.Flammable. |
| **Lower and upper explosion limit / flammability limit** | In air % by vol: lower 1.0 at 212 deg F; upper 7.5 |
| **Flash point** | 25\u00b0C |
| **Auto-ignition temperature** | 360\u00b0C |
| **Decomposition temperature** | no data available |
| **pH** | no data available |
| **Kinematic viscosity** | 1.030 cP at 8.97\u00b0C; 0.872 cP at 19.91\u00b0C. |
| **Solubility** | In water:0.20 g/100 mL. Slightly soluble |
| **Partition coefficient n-octanol/water (log** | log Kow = 2.25 |

**value)**

| | |
|---|---|
| **Vapour pressure** | 5 mm Hg ( 25 \u00b0C) |
| **Density and/or relative density** | 0.876g/mLat 25\u00b0C(lit.) |
| **Relative vapour density** | 4.5 (vs air) |
| **Particle characteristics** | no data available |

**10.Stability and reactivity**
**10.1Reactivity**
no data available
**10.2Chemical stability**
Stable under recommended storage conditions.
**10.3Possibility of hazardous reactions**
Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.ISO-AMYL ACETATE is an ester. Esters react with acids to liberate heat along with alcohols and acids. Strong oxidizing acids may cause a vigorous reaction that is sufficiently exothermic to ignite the reaction products. Heat is also generated by the interaction of esters with caustic solutions. Flammable hydrogen is generated by mixing esters with alkali metals and hydrides. This compound can react violently with oxidizing materials, nitrates, strong alkalis and strong acids.
**10.4Conditions to avoid**
no data available
**10.5Incompatible materials**
can react vigorously with reducing materials.
**10.6Hazardous decomposition products**
Special hazards arising from the substance or mixture: Carbon oxides.

**11.Toxicological information**
**Acute toxicity**
Oral: LD50 Rabbit oral 7422 mg/kg
Inhalation: no data available
Dermal: no data available
**Skin corrosion/irritation**
no data available
**Serious eye damage/irritation**
no data available
**Respiratory or skin sensitization**
no data available
**Germ cell mutagenicity**
no data available
**Carcinogenicity**
no data available
**Reproductive toxicity**
no data available
**STOT-single exposure**
no data available
**STOT-repeated exposure**
no data available
**Aspiration hazard**
no data available

**12.Ecological information**
**12.1Toxicity**
Toxicity to fish: no data available
Toxicity to daphnia and other aquatic invertebrates: no data available
Toxicity to algae: no data available
Toxicity to microorganisms: no data available
**12.2Persistence and degradability**
AEROBIC: Biodegradation studies with isoamyl acetate were not available(SRC, 2015). Structurally similar compounds such as butyl acetate and isopropyl acetate have achieved 50.7 and 40.0%, respectively, of their theoretical BODs after 10 days in mineralized water and settled sanitary sewage at 20\u00b0C(1). Butyl acetate present at 100 mg/L, reached 86% of its theoretical BOD in 2 weeks using an activated sludge inoculum in the Japanese MITI test(2). Isobutyl acetate, methyl amyl acetate, and other alkyl acetates have achieved between 69-81% of their theoretical BODs after 20 days in fresh water tests with non-acclimated sludge(3). These data suggest that biodegradation of isoamyl acetate may be an important environmental fate process(SRC).
**12.3Bioaccumulative potential**
An estimated BCF of 14 was calculated in fish for isoamyl acetate(SRC), using a log Kow of 2.25(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).
**12.4Mobility in soil**
The Koc of isoamyl acetate is estimated as 130(SRC), using a log Kow of 2.25(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that isoamyl is expected to have high mobility in soil.
**12.5Other adverse effects**
no data available

**13.Disposal considerations**
**13.1Disposal methods**
**Product**
The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.
**Contaminated packaging**
Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

**14.Transport information**
**14.1UN Number**
ADR/RID: UN1104 IMDG: UN1104 IATA: UN1104
**14.2UN Proper Shipping Name**
ADR/RID: AMYL ACETATES
IMDG: AMYL ACETATES
IATA: AMYL ACETATES
**14.3Transport hazard class(es)**
ADR/RID: 3 IMDG: 3 IATA: 3
**14.4Packing group, if applicable**
ADR/RID: III IMDG: III IATA: III
**14.5Environmental hazards**
ADR/RID: no IMDG: no IATA: no
**14.6Special precautions for user**
no data available
**14.7Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
no data available

**15.Regulatory information**
**15.1Safety, health and environmental regulations specific for the product in question**

| Chemical name | Common names and synonyms | CAS number | EC number |
|---|---|---|---|
| isoamyl acetate | isoamyl acetate | 123-92-2 | none |
| **European Inventory of Existing Commercial Chemical Substances (EINECS)** | | | Listed. |
| **EC Inventory** | | | Listed. |
| **United States Toxic Substances Control Act (TSCA) Inventory** | | | Listed. |
| **China Catalog of Hazardous chemicals 2015** | | | Listed. |
| **New Zealand Inventory of Chemicals (NZIoC)** | | | Listed. |
| **Philippines Inventory of Chemicals and Chemical Substances (PICCS)** | | | Listed. |
| **Vietnam National Chemical Inventory** | | | Listed. |
| **Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)** | | | Listed. |

**SECTION 16: OTHER INFORMATION**
This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.