Fusel Oil

Material Safety Data Sheet | CAS 8013-75-0 | UN 1201

Section 1. Identification of the Substance and Company

Item	Detail
Product name	Fusel oil (fusel alcohol, amyl alcohol mixture)
CAS number	8013-75-0
Product type	Mixture of higher alcohols, mainly isoamyl alcohol
Recommended use	Raw material for isoamyl alcohol and ester production; solvent; fuel blending; flotation frother
Supplier	Ochnology Solution Private Limited, B-153, Sector-4, Defence Colony, Dehradun 248001, India
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Section 2. Hazards Identification

Item	Detail
GHS classification	Flammable liquid, Category 3. Acute toxicity (inhalation), Category 4. Skin irritation, Category 2. Serious eye irritation, Category 2. Specific target organ toxicity, single exposure (respiratory irritation), Category 3
Signal word	Warning
Pictograms	GHS02 (flame), GHS07 (exclamation mark)
Hazard statements	H226 Flammable liquid and vapour. H332 Harmful if inhaled. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation
Precautionary statements	P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking. P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment. P261 Avoid breathing vapour. P280 Wear protective gloves, eye protection and protective clothing. P303+P361+P353 IF ON SKIN: remove contaminated clothing, rinse skin with water. P304+P340 IF INHALED: remove person to fresh air. P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes, remove contact lenses if easy to do. P370+P378 In case of fire, use alcohol-resistant foam, dry chemical or CO2. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents and container in accordance with local regulations

Section 3. Composition and Information on Ingredients

Component	CAS number	Typical range (%)
Isoamyl alcohol (3-methyl-1-butanol)	123-51-3	55–75
2-Methyl-1-butanol	137-32-6	10–25
Isobutanol	78-83-1	5–20
n-Propanol	71-23-8	1–10
Ethanol, water and esters	64-17-5 / 7732-18-5	Balance

Section 4. First Aid Measures

Item	Detail
Inhalation	Move the person to fresh air. Keep at rest. Give oxygen if breathing is difficult and get medical attention.
Skin contact	Remove contaminated clothing. Wash skin with plenty of soap and water. Get medical attention if irritation persists.

Item	Detail
Eye contact	Rinse with water for at least 15 minutes, holding the eyelids open. Remove contact lenses if easy to do. Get medical attention.
Ingestion	Rinse mouth. Do not induce vomiting. Get medical attention immediately.

Section 5. Fire-Fighting Measures

Item	Detail
Suitable extinguishing media	Alcohol-resistant foam, dry chemical powder, carbon dioxide, water spray for cooling containers
Specific hazards	Vapours are heavier than air and may travel to an ignition source and flash back. Containers may rupture when heated.
Hazardous combustion products	Carbon monoxide and carbon dioxide
Protective equipment	Self-contained breathing apparatus and full protective clothing

Section 6. Accidental Release Measures

Item	Detail
Personal precautions	Remove all ignition sources. Ventilate the area. Wear protective gloves, goggles and respiratory protection.
Environmental precautions	Prevent entry into drains, water courses and soil.
Clean-up	Contain with sand or inert absorbent. Collect with non-sparking tools into closed containers for disposal.

Section 7. Handling and Storage

Item	Detail
Handling	Use in a well-ventilated area. Ground and bond containers during transfer. Use non-sparking tools and explosion-proof equipment. Avoid contact with skin and eyes. Do not eat, drink or smoke while handling.
Storage	Store in tightly closed containers in a cool, dry, well-ventilated area away from heat, sparks and strong oxidising agents.
Packing	Tanker load for domestic supply. UN-approved drums for export.

Section 8. Exposure Controls and Personal Protection

Item	Detail
Exposure limit (isoamyl alcohol, ACGIH)	TWA 100 ppm; STEL 125 ppm
Engineering controls	Local exhaust ventilation or enclosed systems
Eye and face	Chemical splash goggles
Skin and hands	Nitrile or butyl rubber gloves; protective clothing
Respiratory	Organic vapour respirator if ventilation is inadequate

Section 9. Physical and Chemical Properties

Item	Detail
Appearance	Pale yellow to brown liquid
Odour	Strong, pungent
Specific gravity at 20 °C	0.81–0.83
Flash point (closed cup)	About 40–55 °C
Solubility in water	Partly soluble

Item	Detail
Vapour density	Heavier than air
Boiling range	Mixture; main component isoamyl alcohol boils at about 131 °C

Section 10. Stability and Reactivity

Item	Detail
Stability	Stable under normal storage and handling conditions
Conditions to avoid	Heat, sparks, open flames and static discharge
Incompatible materials	Strong oxidising agents, strong acids, acid chlorides, acid anhydrides, alkali metals
Hazardous decomposition	Carbon monoxide and carbon dioxide

Section 11. Toxicological Information

Item	Detail
Inhalation	Harmful. Vapour irritates the nose, throat and respiratory tract. High concentrations may cause headache, dizziness and drowsiness.
Skin	Causes irritation; repeated contact may cause dryness and dermatitis.
Eyes	Causes serious eye irritation.
Ingestion	Harmful if swallowed. May cause nausea, vomiting and central nervous system depression.
Chronic	No carcinogenic, mutagenic or reproductive classification for the main components.

Section 12. Ecological Information

Item	Detail
Mobility and persistence	Main components are alcohols that are expected to biodegrade readily.
Bioaccumulation	Low potential.
Aquatic toxicity	Do not discharge into water bodies or drains.

Section 13. Disposal Considerations

Item	Detail
Waste disposal	Dispose of as hazardous waste through a licensed facility in accordance with local, state and national regulations. Empty containers may retain vapour and must be handled as hazardous.

Section 14. Transport Information

Item	Detail
UN number	UN 1201
Proper shipping name	Fusel oil
Class	3 (flammable liquid)
Packing group	III
Packing for export	UN-approved drums. ISO tank is not supplied.
Domestic packing	Tanker load
Marine pollutant	No

Section 15. Regulatory Information

Item	Detail
Classification	Classified as a flammable liquid under GHS. Handle in accordance with the applicable Indian regulations for hazardous chemicals and flammable liquids.

Item	Detail
Labelling	GHS02, GHS07; signal word Warning

Section 16. Other Information

Item	Detail
Issue date	03 November 2026
Prepared by	Ochnology Solution Private Limited