



ETHYL PROPIONATE

GHS SAFETY DATA SHEET

Version No:2.0

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

ETHYL PROPIONATE

OTHER NAMES

C5-H10-O2, CH3-CH2-COOC2-H5, "propionic acid, ethyl ester", "propionic ether"

PROPER SHIPPING NAME

ETHYL PROPIONATE

PRODUCT USE

Solvent for cellulose ethers and esters, various natural and synthetic resins. A flavouring agent used in fruit syrups. Used also as a cutting agent for pyroxylin.

SUPPLIER

Company: S D FINE- CHEM LIMITED

Address:

315- 317, T.V. INDUSTRIAL ESTATE,

248, WORLI,

MUMBAI- 400030.INDIA.

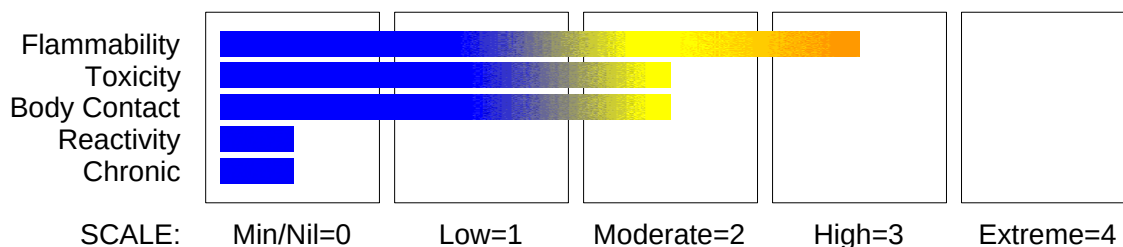
technical@sdfine.com

Telephone: 91- 22- 24959898

Telephone: 91- 22- 24959899

Fax: 91- 22- 24937232

HAZARD RATINGS



Section 2 - HAZARDS IDENTIFICATION

GHS Classification

Eye Irritation Category 2B

continued...

ETHYL PROPIONATE

Flammable Liquid Category 2
Respiratory Effects Category 3
Skin Corrosion/Irritation Category 3



EMERGENCY OVERVIEW

HAZARD

DANGER

Determined by using GHS criteria:

H336 H225 H316 H320

May cause drowsiness and dizziness

Highly flammable liquid and vapour

Causes mild skin irritation

Causes eye irritation

PRECAUTIONARY STATEMENTS

Prevention

Use only non-sparking tools.

Take precautionary measures against static discharge

Wash hands thoroughly after handling.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment

Keep away from heat/sparks/open flame - No smoking.

Keep container tightly closed.

Wear protective gloves and eye/face protection.

Response

If eye irritation persists, get medical advice/attention.

If skin irritation occurs, seek medical advice/attention.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

If on skin or hair: remove/take off immediately all contaminated clothing. Rinse with water/shower.

In case of fire, use foam for extinction.

Disposal

Dispose of contents and container in accordance with relevant legislation.

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Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
ethyl propionate	105-37-3	>98

Section 4 - FIRST AID MEASURES

SWALLOWED

For advice, contact a Poisons Information Centre or a doctor.

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

EYE

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- If inhaled, remove quickly from contaminated area.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

NOTES TO PHYSICIAN

Treat symptomatically.

continued...

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves for fire only.
- Consider evacuation (or protect in place).
- Fight fire from a safe distance, with adequate cover.
- If safe, switch off electrical equipment until vapour fire hazard removed.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

- Liquid and vapour are highly flammable.
- Severe fire hazard when exposed to heat, flame and/or oxidisers.
- Vapour may travel a considerable distance to source of ignition.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- On combustion, may emit toxic fumes of carbon monoxide (CO).

FIRE INCOMPATIBILITY

Avoid contamination with strong oxidising agents as ignition may result.

Personal Protective Equipment

Gloves, boots (chemical resistant).
Breathing apparatus.

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb small quantities with vermiculite or other absorbent material.
- Wipe up.
- Collect residues in a flammable waste container.

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MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- Consider evacuation (or protect in place).
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Water spray or fog may be used to disperse /absorb vapour.
- Contain spill with sand, earth or vermiculite.
- Use only spark-free shovels and explosion proof equipment.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services.

EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

ethyl propionate 750 ppm

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:

ethyl propionate 150 ppm

other than mild, transient adverse effects without perceiving a clearly defined odour is:

ethyl propionate 25 ppm

The threshold concentration below which most people will experience no appreciable risk of health effects:

ethyl propionate 7.5 ppm

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+)	$\geq 0.1\%$	Toxic (T)	$\geq 3.0\%$
R50	$\geq 0.25\%$	Corrosive (C)	$\geq 5.0\%$
R51	$\geq 2.5\%$		
else	$\geq 10\%$		

where percentage is percentage of ingredient found in the mixture

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



+: May be stored together

O: May be stored together with specific preventions

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Section 6 - ACCIDENTAL RELEASE MEASURES

X: *Must not be stored together*

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

Avoid smoking, naked lights or ignition sources.
Wear protective clothing and gloves when handling containers.
Handle and open container with care Keep containers securely sealed when not in use.
Avoid generating and breathing vapour.
Avoid breathing vapours and contact with skin and eyes.
Vapour may travel a considerable distance to source of ignition.
and secure containers when dispensing or pouring product.
Use spark-free tools when handling Avoid generation of static electricity.
until atmosphere has been checked.
Avoid physical damage to containers.
Wash hands with soap and water after handling.

SUITABLE CONTAINER

Glass container.
· Metal can or drum
· Packaging as recommended by manufacturer.
· Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

Avoid storage with oxidisers.

STORAGE REQUIREMENTS

· Store in original containers in approved flame-proof area.
· No smoking, naked lights, heat or ignition sources.
· DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
· Keep containers securely sealed.
· Store away from incompatible materials in a cool, dry well ventilated area.
· Protect containers against physical damage and check regularly for leaks.
· Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

The following materials had no OELs on our records

• ethyl propionate: CAS:105- 37- 3

MATERIAL DATA

No exposure limits set by NOHSC or ACGIH.

PERSONAL PROTECTION

continued...

ETHYL PROPIONATE



EYE

- Chemical goggles.
- Safety glasses.
- Eyewash unit.

HANDS/FEET

- Barrier cream with polyethylene gloves.
- Rubber gloves.

OTHER

- Overalls.
- Eyewash unit.

Ensure there is ready access to an emergency shower.

RESPIRATOR

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half- face Respirator	Full- Face Respirator
1000	10	A- AUS	-
1000	50	-	A- AUS
5000	50	Airline *	-
5000	100	-	A- 2
10000	100	-	A- 3
	100+		Airline**

* - Continuous Flow

** - Continuous-flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.

For further information consult
your

Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

Use in a well-ventilated area and Local exhaust ventilation may be required for safe working, i.e. to keep exposures below required standards, otherwise PPE is required.

If risk of inhalation or overexposure exists, wear SAA approved respirator or work in fume hood.

If inhalation risk of overexposure exists, wear SAA approved organic-vapour respirator.

Provide adequate ventilation in warehouse or closed storage areas.

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Water-white liquid with pineapple odour; does not mix well with water (2.5%). Soluble in alcohol and ether.

PHYSICAL PROPERTIES

Liquid.

Does not mix with water.

Floats on water.

Molecular Weight: 102.13

Melting Range (°C): - 73

Solubility in water (g/L): Partly miscible

pH (1% solution): Not applicable

Volatile Component (%vol): 100

Relative Vapour Density (air=1): 3.52

Lower Explosive Limit (%): 1.8

Autoignition Temp (°C): 475.00

State: Liquid

Boiling Range (°C): 99

Specific Gravity (water=1): 0.888 (25 C)

pH (as supplied): Not applicable

Vapour Pressure (kPa): 5.32 @ 27.2 C

Evaporation Rate: Not available

Flash Point (°C): 12.22

Upper Explosive Limit (%): 11.0

Decomposition Temp (°C): Not available

log Kow : 1.21-1.32

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Although ingestion is not thought to produce harmful effects (as classified under EC Directives), the material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

Considered an unlikely route of entry in commercial/industrial environments.

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EYE

Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.

The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

Limited evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.

Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

INHALED

The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation, of the material, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress. The main effects of simple aliphatic esters are narcosis and irritation and anaesthesia at higher concentrations. These effects become greater as the molecular weights and boiling points increase. Central nervous system depression, headache, drowsiness, dizziness, coma and neurobehavioral changes may also be symptomatic of overexposure. Respiratory tract involvement may produce mucous membrane irritation, dyspnea, and tachypnea, pharyngitis, bronchitis, pneumonitis and, in massive exposures, pulmonary oedema (which may be delayed). Gastrointestinal effects include nausea, vomiting, diarrhoea and abdominal cramps. Liver and kidney damage may result from massive exposures.

CHRONIC HEALTH EFFECTS

Primary route of exposure is usually by inhalation of vapour.

No human exposure data available. For this reason health effects described are based on experience with chemically related materials.

As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

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Section 11 - TOXICOLOGICAL INFORMATION

TOXICITY AND IRRITATION

TOXICITY

Intraperitoneal (rat) LD50: 1200 mg/kg

Intraperitoneal (mouse) LD50: 1158 mg/kg

IRRITATION

Skin (rabbit): 500 mg/24h- Moderate

Section 12 - ECOLOGICAL INFORMATION

Algae IC50 (72hr.) (mg/l): 14

log Pow (Verschuereen 1983): 1.21

log Kow : 1.21-1.32

Toxicity Fish: LC50(96) 0.028-0.05 mg/L

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Authority for disposal.
- Bury or incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: FLAMMABLE LIQUID

HAZCHEM: 3[Y]E

UNDG:

Dangerous Goods Class: 3

UN Number: 1195

Shipping Name: ETHYL PROPIONATE

Subrisk:

None

Packing Group:

II

Air Transport IATA:

ICAO/IATA Class: 3

UN/ID Number: 1195

ERG Code: 3L

Shipping name: ETHYL PROPIONATE

ICAO/IATA Subrisk:

None

Packing Group:

II

Maritime Transport IMDG:

IMDG Class: 3

UN Number: 1195

EMS Number: F- E, S- D

Shipping name: ETHYL PROPIONATE

IMDG Subrisk:

None

Packing Group:

II

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Section 15 - REGULATORY INFORMATION

REGULATIONS

No regulations applicable

No data available for ethyl propionate as CAS: 105-37-3.

Section 16 - OTHER INFORMATION

The above information is believed to be accurate and represent the best information currently available to us, but does not represent any warranty expressed or implied of the properties of the product. User should make their own investigation to determine the suitability of the information for their particular purpose.

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