Safety Data Sheet

According to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Product Identification: Ethyl Nipecotate 0185Am Ghs07 Div.3 sds Ethyl Nipecotate

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Version Number : 0185Am Ghs07 Div.3 sds Ethyl Nipecotate

Supersedes date : February 19, 2021

Supersedes version : 0185Am Ghs06 Div.3 sds Ethyl Nipecotate

SECTION 1.: IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY

1.1 Product identification: Ethyl Nipecotate; **CAS RN:** 5006-62-2; **EC#:** 225-681-3

1.1.1. **Trade name:** Ethyl Nipecotate

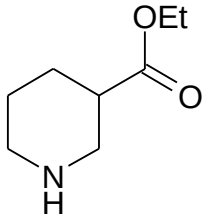
1.1.2. **Systematic Name:** Nipecotic acid ethyl ester Ethyl piperidine-3-carboxylate

1.1.3. **Synonyms:** Nipecotic acid ethyl ester

1.1.4. **Other Languages** De: Ethyl nipecotate
Es: Ethyl nipecotate
Fr: Ethyl nipecotate

1.1.5 **Molecular Formula:** $C_8H_{15}O_2N$

1.1.6. **Structural Formula:**



1.2 **Identified uses:** It is used as an intermediate in organic synthesis.

Uses advised against: None

1.3 Company / supplier: **FACTORY ADDRESS:**

Jubilant Ingrevia Limited
B-34, M.I.D.C. Vadolgaon
Ambernath (W) - 421501
Maharashtra, India
Phone No.: +91-251-2610588
Fax: +91-251- 2610078

HEAD OFFICE:

Jubilant Ingrevia Limited
Plot 1-A, Sector 16-A,
Institutional Area, Noida,
Uttar Pradesh-201301 India.

PHONE NO: +91-120-4361000
FAX NO : +91-120- 4234881 / 84 / 85 / 87 / 95 / 96
Email: support@jubl.com
Website: www.jubilantingrevia.com

1.3 Emergency telephone:

For Chemical Emergency ONLY (in the case of fire, leak, spill, exposure or accident) Call
Chemtrec: 1-800-424-9300 (US), 1-703-527-3887 (Outside U.S.)
Chemtrec (India) : 000-800-100-7141

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance

GHS US Classification

Flammable Liquid: Category 4	H227
Skin irritation: Category 2	H315

2.2 Label elements

Pictograms:

GHS 07-Exclamation

Signal word: Warning!

Hazard and precautionary statements:

Hazard Statements

- H227: Combustible liquid
- H315: Causes skin irritation.

PRECAUTIONARY STATEMENTS

- P210: Keep away from flames and hot surfaces.-No smoking.
- P264: Wash hands, eyes and face thoroughly after handling.

- P280: Wear protective gloves/clothing and eye/face protection.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P332+P313: If skin irritation occurs: Get medical advice/attention
- P362: Take off contaminated clothing and wash before reuse.
- P370+P378: In case of fire: Use water for extinction.
- P403+P235: Store in a well ventilated place. Keep cool.
- P501: Dispose of contents/container to local/regional/national/international regulations.

2.3 Other Hazards

- Substance is not classified as PBT nor as vPvB. For further details see section 12.

SECTION 3: COMPOSITION / INFORMATION ON INGERDIENTS

Substance	CAS No.	EINECS No.	Purity	GHS US Classification		
				Hazard Classes and categories	Pictograms Signal Words	Hazard Statements
Ethyl nipecotate	5006-62-2	225-681-3	≥98%	Skin corrosion / irritation: Category 2	GHS 07 	H315

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures.

- **Eyes**: If in eyes rinse cautiously with water for at least 15 minutes. Remove contact lenses if easy to do so. Continue rinsing. Seek medical attention.
- **Skin:** Immediately take off all contaminated clothing. Wash thoroughly with water for at least 15 minutes. Wash contaminated clothes before reuse. Seek immediate medical attention.
- **Inhalation**: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if you feel unwell. Monitor for respiratory distress. Apply artificial respiration if not breathing.
- **Ingestion**: If swallowed call a poison center if you feel unwell. Rinse mouth. Do NOT induce vomiting by use of emetics. Seek medical attention.

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

- ***Acute effects:***
  Causes skin and eye irritations. If swallowed, it causes irritation to mucous membrane and upper respiratory tract.

4.3. Indication of any immediate medical attention and special treatment needed.

- **Notes to Physician**: Treat symptomatically

SECTION 5 : FIRE-FIGHTING MEASURES

5.1. Extinguishing media.

- *Appropriate extinguishing media*: Dry chemical powder, carbon dioxide, and alcohol resistant foam. Water may be in effective. Water sprays can be effective in cooling down the fire-exposed containers and knocking down the vapours. Do not use water jet or fog (spray) to extinguish. Water jets may be used to flush spills away and dilute the same to non-flammable mixtures fog or alcohol-resistant foam by directing streams to the periphery of the fires to prevent spread. Do not permit water to get inside containers.

5.2. Special hazards arising from the substance or mixture.

- Toxic vapors may be released on thermal decomposition including nitrogen oxides, carbon monoxide and carbon dioxide.
- High vapor concentration may result in an explosion hazard.
- Vapors are heavier than air. May travel considerable distance from source and flashback.

5.3. Advice for firefighters.

- Evacuate the area and fight fires from a safe distance.
- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions or as per locally valid procedures.
- Fire-fighters must wear Self Contained Breathing Apparatus (SCBA)
- Chemical is water-soluble. Report any run-off of firewaters contaminated with this chemical as per local and federal procedures applicable.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures.

6.1.1 For non-emergency personnel

- Wear protective clothing, full boots, impervious gloves, safety glasses and Self Contained Breathing Apparatus (SCBA), as may be deemed appropriate.
- Avoid breathing vapors and contact with skin and eyes.
- Shut off leak source if possible.
- Shut off all possible sources of ignition.
- Wipe up.
- Decontaminate all equipment.
- Use non-sparking tools.

6.1.2 For emergency personnel

- Wear protective clothing, full boots, impervious gloves, safety glasses and Self Contained Breathing Apparatus (SCBA), as may be deemed appropriate.
- Alert Emergency Responders and tell them location and nature of hazard.
- Shut off all possible sources of ignition and increase ventilation.
- Stop leaks if possible.
- Clean up all spills immediately following relevant Standard Operating Procedures.
- Avoid breathing vapors and contact with skin and eyes.

6.2. Environmental precautions.

- Clean up all spills immediately following relevant Standard Operating Procedures.
- Inform authorities in event of contamination of any public sewers, drains or water bodies.
- Wipe up.
- Prevent, by any means available, spillage from entering drains or water and watercourses.
- Collect recoverable product into labeled containers for recycling, recovery or disposal.
- Contain spill with sand, earth or vermiculite.
- Spread area with lime or absorbent material, and leave for at least 1 hour before washing.

6.3. Methods and material for containment and cleaning up.

- Clean up all tools and equipment.
- Decontaminate all equipment.

6.4. Reference to other sections.

- For more information please refer to section 8 and 13

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

- Avoid breathing dust/mist.
- Wear protective gloves/clothing and eye/face protection.
- Wash hands, eyes and face thoroughly after handling.
- Ground and secure containers when dispensing or pouring product.
- Avoid contact with incompatible materials.
- When handling,DO NOT eat, drink or smoke.
- Launder contaminated clothing before re-use.
- If on skin or hair, IMMEDIATELY remove all contaminated clothing and rinse/shower with plenty of water.
- Use in a well ventilated place/Use protective clothing commensurate with exposure levels.

7.2. Conditions for safe storage, including any incompatibilities

- Store in a flame proof area.
- Store at ambient temperature in a well ventilated place.
- Store away from incompatible materials.
- Keep securely closed when not in use.

7.3. Specific end use(s)

- It is used as an intermediate in organic syntheses.

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

8.1.1 Exposure Limits Values

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	AIHA WELs
Ethyl nipecotate	None listed	None listed	None listed	None listed

8.1.2 Exposure Limits (International):

- Not available.

8.1.3 Derived No-Effect-Levels (DNEL) / Predicted No-effect-concentration (PNEC)

- DNEL and PNEC data not available.

8.2. Exposure controls

8.2.1 Appropriate Engineering Controls:

- Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. Local ventilation is usually preferred. Ensure that eyewash stations and safety showers are close to the workstation location.

8.2.2. Personal Protection:

- Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.
- **Hands:**

In full Contact:

Glove material:	butyl rubber
Layer thickness:	0.70 mm
Breakthrough Time:	>480 Min

In Splash Contact:

Glove material:	Nitrile Rubber
Layer thickness:	0.40 mm
Breakthrough Time:	>120 Min

- The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374, for example KCL 740 Dermatril® (full contact), 740 Dermatril® (splash contact).
- **Eyes**: Safety goggles/ Chemical Safety glasses and Face shield.
- **Clothing**: Boots and clothing to prevent contact.
- **Respirator**: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties.

Sr.No.	Parameter	Typical value
1.	Appearance	Colorless to pale yellow liquid
2.	Odor	Characteristic odour

3.	Odor Threshold	Not available
4.	pH	10.4-10.6
5.	Melting point/Freezing point	Not available
6.	Boiling Point	102-104^{0}C @ 7mm Hg
7.	Flash point	91^{0}C (closed cup)
8.	Evaporation rate (n-BuAc=1)	Not available
9.	Flammability (Solid)	Not Applicable
10.	Upper/lower flammability or Explosive limits	Not available
11.	Vapor pressure	7.78 Pa at 25°C (by Modified Grain Method)
12.	Vapor density (air=1)	Not available
13.	Relative density	1.012
14.	Solubility	279900 mg/L at 25°C soluble in water; Highly Soluble in methanol, ethanol and ethyl acetate.
15.	Partition coefficient : n-(Octonol / water)	1.15 (estimated)
16.	Auto-ignition temperature	Not available
17.	Decomposition temperature	Not available
18.	Viscosity	Not available
19.	Explosive property	No

20.	Oxidizing property	No

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

- It is a colorless to pale yellow liquid. It has Characteristic odor and is partially soluble in water; Highly Soluble in methanol, ethanol and ethyl acetate in water.

10.2. Chemical stability

- Stable under normal temperatures and pressure and pressure.

10.3. Possibility of hazardous reactions

- Hazardous Polymerization: Not expected.

10.4. Conditions to avoid

- Ignition sources, excess heating.

10.5. Incompatible materials

- Oxidizing and non oxidizing mineral acids, organic acids and aldehydes and strong bases.

10.6. Hazardous decomposition products

- When heated it may produce hazardous combustion gases like Nitrogen oxides, carbon monoxide, carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

a) Acute toxicity

- **RTECS#:** Unlisted
- **LD50 (Oral) Rat:** 2317.37 mg/kg (Predicted Oral rat LD50 from Consensus method)

b) Skin corrosion/irritation

- It is irritating to skin.

c) Serious eye damage/irritation

- No data available

d) Respiratory or skin sensitization

- No data available

e) Germ cell Mutagenicity

- No information is available.

f) Carcinogenicity

- Not listed by NTP, IARC and OSHA.
- Not present on the EU CMR list.

g) Reproductive toxicity

- No data is available.

h) STOT-single exposure

- No data is available.

i) *STOT- repeated exposure*

- No data available.

j) Aspiration Hazards

- No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1 Ecotoxicity:

- **Environmental Toxicity:**
  - Fathead minnow LC50 (96 hr) -108.32 mg/kg (Predicted Fathead minnow LC50 from consensus method)
  - It is expected to be non toxic to fish and other aquatic organisms.

12.2. Persistence and degradability

- It is expected to be biodegradable in aerobic and anaerobic conditions.

12.3. Bio accumulative potential

- BCF = 2.65
- Log Kow = 1.15

Based on the Log Kow and Bioconcentration factor value it is expected to have negligible potential to concentrate in fatty tissue of fish and aquatic organisms relative to its surroundings.

12.4. Mobility in soil

- Log Koc=1.45 (estimated). Low sorption.
- Henry's Law Constant 5.42E-008 atm-m3/mole at 25 degrees. Non- volatile from aqueous bodies.
- Log Kow= 1.15 (estimated). Negligible potential to bioaccumulate.

12.5. Results of PBT and vPvB assessment

- The substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII.

12.6. Other adverse effects.

- **Environment Fate:**
- Based on the environmental modeling, this material has a low potential to get absorbed in the organic matter of soil and is non-volatile from water bodies. Since this is an estimated result it is recommended that the material should be disposed into the environment. The material should never be disposed into the sewage.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

- Burn in a chemical incinerator equipped with an afterburner and scrubber.
- Dispose of this material in accordance with standard practice for disposal of potentially hazardous materials as required by applicable federal, state or local laws. Note that disposal regulations may also apply to empty containers and equipment rinsates.

SECTION 14: TRANSPORT INFORMATION

- This substance is considered to be non hazardous for transport by Air/Rail/Road and Sea and thus not regulated by IMO/ IMDG/ IATA/ ICAO.

Mode of Transport	Agency
Land transport	ADR/RID
Maritime Transport	IMDG
Air Transport	IATA

14.1. UN number

- Not applicable.

14.2. UN proper shipping name

- Not applicable**.**

14.3. Transport hazard class(es)

- Not applicable.

14.4. Packing group

- Not applicable.

14.5. Environmental hazards

- This chemical is not a marine pollutant but is nevertheless harmful to the environment.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture.
Classification (as per Regulation (EC) No 1272/2008):

- **Hazards Class and Category**: Skin irrit.2
- **Hazard Statements:** H315

US information

- CAS# 5006-62-2 is not listed on the TSCA inventory. It is for research and development use only.

Canada Information

- The chemical substance is not listed in DSL/NDSL list. There is no control measure imposed to this substance.

SECTION 16: OTHER INFORMATION

(a) Compilation information of safety data sheet

Chemical: Ethyl nipecotate
CAS #: 5006-62-2
File Name: 0185Am Ghs07 Div.3 sds Ethyl Nipecotate
Revision Number: 07
Date of Issue of SDS: April 03, 2024
Revision Due Date: March, 2027

(b) A key or legend to aberrations and acronyms used in the safety data sheet;

- OECD=Organization for Economic C0-operation and Development.
- PBT =Persistent Bioaccumulative and Toxic
- vPvB= Very Persistent and Very Bioaccumulative
- SCBA= Self Contained Breathing Apparatus
- NIOSH REL= National Institute for Occupational Safety and Health Recommended Exposure Limit OSHA PEL=Occupational Safety and Health Adminstration Permissible Exposure Limit
- OELTWA= Occupational Exposure Limit Time Weighted Averages
- IDLH= Immediately Dangerous to Life or Health
- UEL= Upper Explosive Limit
- LEL= Lower Explosive Limit
- RTECS= Registry of Toxic Effects of Chemical Substances
- NTP=National Toxicology Programm
- IARC= International Agency for Research on Cancer
- EPA=Environmental Protection Agency
- TSCA= Toxic Substances Control Act
- CERCLA= Comprehensive Environmental Response, Compensation, and Liability Act
- SARA= Superfund Amendments and Reauthorization Act
- NFPA= National Fire Protection Association
- WHIMS= Workplace Hazardous Materials Information System
- DSL/NDSL= Domestic/Non-Domestic Substances List
- CSR=Chemical Safety Report
- BCF = Bio Concentration Factor
- DNEL = Derived No Effect Level
- PNEC = Predicted No Effect Concentration
- TLV = Threshhold Limit Value
- ACGIH = American Conference of Governmental Industrial Hygienists
- REACH = Registration, Evaluation .Authorisation and Restriction of Chemicals
- CLP = Classification, Labelling and Packaging
- LD / LC = Lethal Doses / Lethal Concentration
- GHS = Globally Harmonised System
- ADR = Accord europeen relative au transport international de marchandises
- IMDG-Code = International Maritime Code for Dangerous Goods
- EmS = Emergency measures on Sea
- ICAO = International Civil Aviation Organization
- IATA/DGR= International Air Transport Association/Dangerous Goods Regulation

(c) Key Literature reference and sources for data

Biographical reference and data sources

- CLP REG (regulation) (EC) no. 1272/2008, last modification by regulation (EC) no. 790/2009
- DIR 67/548/EWG, last modification by DIR 2009/2/EC
- REG (EC) no. 1907/2006, last modification by REG (EC) Nr. 453/2009

Internet

- RTECS

Company's Declaration:

Information contained in this SDS is believed to be correct but no representation, guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application or results to be obtained from them. This SDS shall be used as a guide only. Jubilant Ingrevia Limited makes no warranties expressed or implied of the adequacy of this document for any particular purpose.

(End of Safety Data Sheet)