

Australian statement of hazardous nature: Classified as hazardous according to criteria of Safe Work Australia

# Section 1 - Identification

Product Name N-Ethyldiisopropylamine, 99%

**CAS No** 7087-68-5

Synonyms Huenig's base; N-Ethyldiisopropylamine

Product Code S11801

Address ThermoFisher Scientific Australia Pty Ltd

5 Caribbean Drive, Scoresby VICTORIA 3179, Australia

Emergency Tel. CHEMTREC®

03 9757 4559 or +613 9757 4559

**Telephone / Fax Numbers** Tel: 1300 735 292

Fax: 1800 067 639

E-mail address ANZinfo@thermofisher.com

Recommended Use Laboratory chemicals.

Uses advised against This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction. This product does not contain any substance(s) listed on the voluntary National

Code of Practice for Chemicals of Security Concern.

# Section 2 - Hazard(s) Identification

# Classification under Safe Work Australia

Classified as hazardous according to criteria of Safe Work Australia

Physical hazards

Flammable liquids Category 2

**Health hazards** 

Acute Oral Toxicity

Acute Inhalation Toxicity - Vapors

Serious Eye Damage/Eye Irritation

Specific target organ toxicity - (single exposure)

Category 3

Category 1

Category 3

**Environmental hazards** 

No hazards identified

**Label Elements** 

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# Signal Word

### Danger

### **Hazard Statements**

H225 - Highly flammable liquid and vapor

H302 - Harmful if swallowed

H318 - Causes serious eye damage

H331 - Toxic if inhaled

H335 - May cause respiratory irritation

### **Precautionary Statements**

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P233 - Keep container tightly closed

P234 - Keep only in original packaging

P240 - Ground and bond container and receiving equipment

P241 - Use explosion-proof electrical/ ventilating/ lighting equipment

P242 - Use non-sparking tools

P243 - Take action to prevent static discharges

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P271 - Use only outdoors or in a well-ventilated area

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

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

P330 - Rinse mouth

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

P390 - Absorb spillage to prevent material damage

P402 - Store in a dry place

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

P406 - Store in corrosion resistant polypropylene container with a resistant inliner

P405 - Store locked up

P501 - Dispose of contents/ container to an approved waste disposal plant

### Other information

Toxic to terrestrial vertebrates

# Section 3 - Composition and Information on Ingredients

	Component	CAS No	Weight %
-	2-Propanamine, N-ethyl-N-(1-methylethyl)-	7087-68-5	>95

# Section 4 - First Aid Measures

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Inhalation	Remove to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. If not breathing, give artificial respiration.
Ingestion	Do NOT induce vomiting. Call a physician or poison control center immediately.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
General Advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Self-Protection of the First Aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.
First Aid Facilities	Eyewash, safety shower and washroom.
Most important symptoms and effects	Difficulty in breathing. Causes eye burns. Causes severe eye damage. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

# Section 5 - Fire Fighting Measures

### **Suitable Extinguishing Media**

Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

Treat symptomatically.

# Extinguishing media which must not be used for safety reasons

Water may be ineffective.

**Notes to Physician** 

# **Hazardous Decomposition Products**

Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Thermal decomposition can lead to release of irritating gases and vapors.

# **Specific Hazards Arising from the Chemical**

Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. In the event of fire and/or explosion do not breathe fumes.

# Special protective equipment and precautions for fire fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

# Section 6 - Accidental Release Measures

### **Emergency procedures**

Use personal protective equipment as required. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges.

# **Environmental Precautions**

Should not be released into the environment. See Section 12 for additional Ecological Information.

### Methods for Containment and Clean Up

Clean-up methods - small spillage

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Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

### Clean-up methods - large spillage

Typically only supplied is small quantiites as packaged goods.

If extremely toxic or used in larger quantities ensure a spillage action plan is in place. Evacuate area. Control the source and/or contain the spill if safe and able to do so. Use temporary diking, sand bags, dry sand, earth or proprietary booms/absorbent pads if available. Obtain advice on containment, neutralisation and clean-up from local emergency responders.

#### Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

# Section 7 - Handling and Storage

### **Precautions for Safe Handling**

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

### Conditions for Safe Storage, Including any Incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame. Flammables area.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals AS 1940-2004 - The storage and handling of flammable and combustible liquids

# Section 8 - Exposure Controls and Personal Protection

### **Exposure limits**

The product does not contain any hazardous materials with occupational exposure limits established.

### **Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

### **Exposure Controls**

# **Engineering Measures**

Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

#### Personal protective equipment

Eye Protection Goggles (Australian/New Zealand Standard AS/NZS 1337 - Eye protectors for Industrial

applications)

Hand Protection Protective gloves

Glove material	Breakthrough time	Glove thickness	AUS/NZ Standard	Glove comments
Natural rubber Nitrile rubber Neoprene PVC	See manufacturers recommendations	-	AS/NZS 2161	(minimum requirement)

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

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Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Skin and body protection Long sleeved clothing

Repiratory Protection Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or

other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use

and maintenance of repiratory protective devices

Recommended Filter type: Particulates filter conforming to EN 143 Ammonia and organic ammonia derivatives filter

Type K Green conforming to EN14387 (or AUS/NZ equivalent)

Recommended half mask:- Valve filtering: EN405 or Half mask: EN140 plus filter, EN 141 (or AUS/NZ equivalent)

When RPE is used a face piece Fit Test should be conducted

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** No information available.

# Section 9 - Physical and Chemical Properties

### Information on basic physical and chemical properties

Appearance Light yellow Physical State Liquid

Odor
Odor Threshold
PH
No information available
No information available
No information available
No information available
No formation available
-46 °C / -50.8 °F
No data available

Boiling Point/Range 127 °C / 260.6 °F @ 760 mmHg

Flash Point 6 °C / 42.8 °F Method - No information available

Evaporation Rate

No data available

Flammability (solid,gas) Not applicable Liquid

Explosion Limits Lower 3 vol% Upper 17 vol%

Vapor Pressure 14hPa @ 20°C

Vapor Density No data available (Air = 1.0)

Specific Gravity / Density 0.7560

Bulk Density
Not applicable
Liquid
Water Solubility
Not applicable
3.9 g/L (20°C)

Solubility in other solvents

No information available

Partition Coefficient (n-octanol/water)

Component log Pow 2-Propanamine, -1.8

N-ethyl-N-(1-methylethyl)-

Autoignition Temperature

260 °C / 500 °F

Decomposition Temperature

260 °C / 500 °F

No data available

Viscosity 0.88 cSt @ 20°C Kinematic

Explosive Properties Vapors may form explosive mixtures with air

Oxidizing Properties No information available

Other informationMolecular FormulaC8 H19 NMolecular Weight129.24

# Section 10 - Stability and Reactivity

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**Reactivity** None known, based on information available

**Stability** Stable under recommended storage conditions.

Conditions to Avoid Incompatible products, Excess heat, Keep away from open flames, hot surfaces and

sources of ignition.

Incompatible Materials Acids, Strong oxidizing agents, Metals, copper, Carbon dioxide (CO2), Butyl rubber.

Hazardous Decomposition Products Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO2). Thermal

decomposition can lead to release of irritating gases and vapors.

Hazardous Polymerization Hazardous polymerization does not occur.

# Section 11 - Toxicological Information

### Information on Toxicological Effects

#### **Product Information**

(a) acute toxicity;

Oral Category 4

**Dermal** Based on available data, the classification criteria are not met

Inhalation Category 3

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-Propanamine, N-ethyl-N-(1-methylethyl)-	317 mg/kg (Rat)		2.63 mg/L 4h ( Rat )

(b) skin corrosion/irritation; Based on available data, the classification criteria are not met

(c) serious eye damage/irritation; Category 1

(d) respiratory or skin sensitization;

**Respiratory**Skin
Based on available data, the classification criteria are not met
Based on available data, the classification criteria are not met

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met

(f) carcinogenicity; Based on available data, the classification criteria are not met

There are no known carcinogenic chemicals in this product

(g) reproductive toxicity; Based on available data, the classification criteria are not met

(h) STOT-single exposure; Category 3

Results / Target organs Respiratory system

(i) STOT-repeated exposure; Based on available data, the classification criteria are not met

Target Organs None known.

(j) aspiration hazard; Based on available data, the classification criteria are not met

Other Adverse Effects The toxicological properties have not been fully investigated.

Symptoms / effects,both acute and Inhalation of high vapor concentrations may cause symptoms like headache, dizziness,

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delayed tiredness, nausea and vomiting

# Section 12 - Ecological Information

Contains no substances known to be hazardous to the environment or that are not **Ecotoxicity effects** degradable in waste water treatment plants.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
2-Propanamine, N-ethyl-N-(1-methylethyl)-	LC50: = 69.7 mg/L, 96h	>100 mg/L 48h		
	flow-through (Danio			
	rerio)			

Persistence and Degradability

Not readily biodegradable

**Persistence** Soluble in water, Persistence is unlikely, based on information available.

**Bioaccumulative Potential** Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
2-Propanamine, N-ethyl-N-(1-methylethyl)-	-1.8	No data available

**Mobility** 

The product is water soluble, and may spread in water systems. Will likely be mobile in the

environment due to its water solubility Highly mobile in soils

**Endocrine Disruptor Information Persistent Organic Pollutant Ozone Depletion Potential** 

This product does not contain any known or suspected endocrine disruptors

This product does not contain any known or suspected substance This product does not contain any known or suspected substance

# Section 13 - Disposal Considerations

Waste from Residues/Unused

**Products** 

Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure

conformity with all applicable regulations.

**Contaminated Packaging** 

Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

Other Information

Chemical wastes should be disposed through a licensed commercial waste collection service. Waste codes should be assigned by the user based on the application for which the product was used. Do not flush to sewer. Can be landfilled or incinerated, when in compliance with local regulations. Do not empty into drains.

# Section 14 - Transport Information

### IMDG/IMO

**UN-No** UN3384

**Proper Shipping Name** TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S.

**Technical Shipping Name** N,N-Diisopropylethylamine

**Hazard Class** 6.1 **Subsidiary Hazard Class** 3 **Packing Group** 

ADG

**UN-No** UN3384

TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. **Proper Shipping Name** 

**Technical Shipping Name** N,N-Diisopropylethylamine

**Hazard Class** 6.1 **Subsidiary Hazard Class** 3 **Packing Group** 

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IATA FORBIDDEN FOR IATA TRANSPORT

UN-No UN3384

Proper Shipping Name TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S.\* FORBIDDEN FOR IATA

**TRANSPORT** 

**Technical Shipping Name** N,N-Diisopropylethylamine

Hazard Class 6.1 Subsidiary Hazard Class 3 Packing Group

Environmental hazards No hazards identified

Special Precautions No special precautions required

Additional information None known

# Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

National Regulations Australia

See section 8 for national exposure control parameters.

### Standard for the Uniform Scheduling of Medicines and Poisons

No poison schedule number allocated.

#### **Australian Industrial Chemicals Introduction Scheme (AICIS)**

Component	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
2-Propanamine, N-ethyl-N-(1-methylethyl)- - 7087-68-5	Present	-

# Australian - Illicit Drug Precursors/Reagents Substance List

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

### **Chemicals of Security Concern**

This product does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern

National pollutant inventory Not applicable

# Prohibition or notification/licensing requirements

Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction.

### **International Inventories**

Component	AICS	NZIoC	EINECS	ELINCS	TSCA	DSL	NDSL	PICCS	<b>ENCS</b>	ISHL	IECSC	KECL
2-Propanamine,	Χ	X	230-392-0		X	Χ	-	-	Χ	X	Χ	KE-10950

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N-ethyl-N-(1-methyleth						
yl)-						

Legend: X - Listed. '-' - Not Listed. KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

**International Regulations** 

Ozone Depletion Potential This product does not contain any known or suspected substance

Persistent Organic Pollutant This product does not contain any known or suspected substance

Rotterdam Convention (PIC) Not applicable

Basel convention on the control of transboundary movements of hazardous wastes and their dispoal Not applicable.

Component	CAS No	OECD HPV	Restriction of	Seveso III Directive	Seveso III Directive
			Hazardous	(2012/18/EC) -	(2012/18/EC) -
			Substances (RoHS)	<b>Qualifying Quantities</b>	<b>Qualifying Quantities</b>
				for Major Accident	for Safety Report
				Notification	Requirements
2-Propanamine,	7087-68-5	Not applicable	Not applicable	Not applicable	Not applicable
N-ethyl-N-(1-methylethyl)-					

Authorisation/Restrictions according to EU REACH

Not applicable

# Section 16 - Other Information

### Legend

AICS - Australian Inventory of Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**IECSC** - Chinese Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

NZS 5433:2012 - Transport of Dangerous Goods on Land

LD50 - Lethal Dose 50%

**EC50** - Effective Concentration 50% **WEL** - Workplace Exposure Limit

**DNEL** - Derived No Effect Level **POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

VOC - (Volatile Organic Compound)

Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

NZIoC - New Zealand Inventory of Chemicals

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**ENCS** - Japanese Existing and New Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

CAS - Chemical Abstracts Service

**ACGIH** - American Conference of Governmental Industrial Hygienists

Predicted No Effect Concentration (PNEC)

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**ADG** Australian Code for the Transport of Dangerous Goods by Road and Rail

**OECD** - Organisation for Economic Co-operation and Development

**LC50** - Lethal Concentration 50% **ATE** - Acute Toxicity Estimate

RPE - Respiratory Protective Equipment NOEC - No Observed Effect Concentration

**BCF** - Bioconcentration factor

PBT - Persistent, Bioaccumulative, Toxic

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Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

### **Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Revision Date 20-Nov-2022 Revision Summary Initial Release.

This Safety Data Sheet (SDS) is prepared in accordance to and complies with the requirements of Safe Work Australia - Work Health and Safety Regulations (WHS Regulations).

### **Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

# **End of Safety Data Sheet**

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