

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

Revision Date 24.08.2018

Version 6.2

---

**SECTION 1. Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Catalogue No.	800894
Product name	N-Ethyldiisopropylamine for synthesis
REACH Registration Number	01-2119973181-39-xxxx    01-2119973181-39-XXXX
CAS-No.	7087-68-5

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses	Chemical for synthesis For additional information on uses please refer to the Merck Chemicals portal ( <a href="http://www.merckgroup.com">www.merckgroup.com</a> ).
-----------------	---

**1.3 Details of the supplier of the safety data sheet**

Company	Merck KGaA * 64271 Darmstadt * Germany * Phone:+49 6151 72-0
Responsible Department	LS-QHC * e-mail: <a href="mailto:prodsafe@merckgroup.com">prodsafe@merckgroup.com</a>

1.4 Emergency telephone number	Please contact the regional company representation in your country.
--------------------------------	---

---

**SECTION 2. Hazards identification****2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

Flammable liquid, Category 2, H225  
Acute toxicity, Category 4, Oral, H302  
Acute toxicity, Category 3, Inhalation, H331  
Serious eye damage, Category 1, H318  
Specific target organ toxicity - single exposure, Category 3, Respiratory system, H335  
For the full text of the H-Statements mentioned in this Section, see Section 16.

## 2.2 Label elements

### Labelling (REGULATION (EC) No 1272/2008)

#### *Hazard pictograms*



#### *Signal word*

Danger

#### *Hazard statements*

H225 Highly flammable liquid and vapour.  
H302 Harmful if swallowed.  
H318 Causes serious eye damage.  
H331 Toxic if inhaled.  
H335 May cause respiratory irritation.

#### *Precautionary statements*

##### Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P240 Ground/bond container and receiving equipment.  
P280 Wear eye protection.

##### Response

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

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

P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

Storage

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

## Reduced labelling (≤125 ml)

*Hazard pictograms*



*Signal word*

Danger

*Hazard statements*

H318 Causes serious eye damage.

H331 Toxic if inhaled.

*Precautionary statements*

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

P280 Wear eye protection.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.

P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

CAS-No. 7087-68-5

## 2.3 Other hazards

None known.

---

## SECTION 3. Composition/information on ingredients

### 3.1 Substance

Formula	$[(\text{CH}_3)_2\text{CH}]_2\text{NCH}_2\text{CH}_3$	$\text{C}_8\text{H}_{19}\text{N}$ (Hill)
EC-No.	230-392-0	
Molar mass	129,24 g/mol	

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyl-diisopropylamine for synthesis

---

## Hazardous components (REGULATION (EC) No 1272/2008)

*Chemical name (Concentration)*

CAS-No. Registration number Classification

N-ethyl-N,N-diisopropylamine (<= 100 % )

7087-68-5	01-2119973181-39- xxxx 01- 2119973181-39-XXXX	Flammable liquid, Category 2, H225 Acute toxicity, Category 4, H302 Acute toxicity, Category 3, H331 Serious eye damage, Category 1, H318 Specific target organ toxicity - single exposure, Category 3, H335
-----------	---	--

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 3.2 Mixture

Not applicable

---

## SECTION 4. First aid measures

### 4.1 Description of first aid measures

*General advice*

First aider needs to protect himself.

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/shower.

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

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

Irritation and corrosion, Cough, Shortness of breath

Risk of serious damage to eyes.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

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

No information available.

---

### SECTION 5. Firefighting measures

#### 5.1 Extinguishing media

*Suitable extinguishing media*

Foam, Carbon dioxide (CO<sub>2</sub>), Dry powder

*Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

#### 5.2 Special hazards arising from the substance or mixture

Combustible.

Pay attention to flashback.

Vapours are heavier than air and may spread along floors.

Forms explosive mixtures with air at ambient temperatures.

Development of hazardous combustion gases or vapours possible in the event of fire.

Fire may cause evolution of:

nitrogen oxides

#### 5.3 Advice for firefighters

*Special protective equipment for firefighters*

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

*Further information*

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

---

### SECTION 6. Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

Advice for emergency responders:

Protective equipment see section 8.

## 6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

## 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

## 6.4 Reference to other sections

Indications about waste treatment see section 13.

---

## SECTION 7. Handling and storage

### 7.1 Precautions for safe handling

#### *Advice on safe handling*

Observe label precautions.

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

#### *Advice on protection against fire and explosion*

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### *Hygiene measures*

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

### 7.2 Conditions for safe storage, including any incompatibilities

#### *Storage conditions*

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorised persons. Protected from light.

Recommended storage temperature see product label.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

## 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

---

## SECTION 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Derived No Effect Level (DNEL)

Worker DNEL, longterm	Systemic effects	inhalation	4,2 mg/m <sup>3</sup>
Worker DNEL, acute	Systemic effects	inhalation	12,6 mg/m <sup>3</sup>
Worker DNEL, longterm	Local effects	inhalation	4,2 mg/m <sup>3</sup>
Worker DNEL, acute	Local effects	inhalation	12,6 mg/m <sup>3</sup>
Worker DNEL, longterm	Systemic effects	dermal	2,96 mg/kg Body weight
Consumer DNEL, longterm	Systemic effects	inhalation	0,5 mg/m <sup>3</sup>
Consumer DNEL, longterm	Local effects	inhalation	0,5 mg/m <sup>3</sup>
Consumer DNEL, longterm	Systemic effects	oral	1,05 mg/kg Body weight

#### Predicted No Effect Concentration (PNEC)

PNEC Fresh water	0,173 mg/l
PNEC Marine water	0,0173 mg/l
PNEC Aquatic intermittent release	0,281 mg/l
PNEC Fresh water sediment	41,09 mg/kg
PNEC Marine sediment	4,11 mg/kg
PNEC Soil	8,12 mg/kg
PNEC Sewage treatment plant	9,12 mg/l

### 8.2 Exposure controls

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

## Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

## Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

### *Eye/face protection*

Tightly fitting safety goggles

### *Hand protection*

full contact:

Glove material:	Nitrile rubber
Glove thickness:	0,40 mm
Break through time:	> 480 min

splash contact:

Glove material:	butyl-rubber
Glove thickness:	0,7 mm
Break through time:	> 30 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 730 Camatril® -Velours (full contact), KCL 898 Butoject® (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet(>,<) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

### *Other protective equipment*

Flame retardant antistatic protective clothing.



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

## *Respiratory protection*

required when vapours/aerosols are generated.

Recommended Filter type: filter ABEK

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

## **Environmental exposure controls**

Do not let product enter drains.

Risk of explosion.

---

## **SECTION 9. Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

Form	liquid
Colour	colourless
Odour	amine-like
Odour Threshold	Do not attempt to smell the product as it is hazardous.
pH	12,3 at 20 °C (as an emulsion)
Solidification point	-127 °C
Boiling point/boiling range	ca. 128 °C at 1.013 hPa

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

Flash point	9,5 °C at 1.013 hPa
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	0,7 %(V)
Upper explosion limit	6,3 %(V)
Vapour pressure	ca.14 hPa at 20 °C Method: OECD Test Guideline 104
Relative vapour density	No information available.
Density	0,76 g/cm <sup>3</sup> at 20 °C Method: OECD Test Guideline 109
Relative density	No information available.
Water solubility	4,01 g/l at 20 °C Method: OECD Test Guideline 105
Partition coefficient: n-octanol/water	log Pow: ca. -1,8 OECD Test Guideline 107 Bioaccumulation is not expected.
Auto-ignition temperature	No information available.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

Decomposition temperature Distillable in an undecomposed state at normal pressure.

Viscosity, dynamic No information available.

Explosive properties Not classified as explosive.

Oxidizing properties none

## 9.2 Other data

Ignition temperature 240 °C

Particle size Not applicable

Viscosity, kinematic 0,88 mm<sup>2</sup>/s  
at 20 °C

---

## SECTION 10. Stability and reactivity

### 10.1 Reactivity

Vapours may form explosive mixture with air.

### 10.2 Chemical stability

sensitive to moisture

Sensitivity to light

Sensitive to air.

### 10.3 Possibility of hazardous reactions

Caution! In contact with nitrites, nitrates, nitrous acid possible liberation of nitrosamines!

Violent reactions possible with:

Strong oxidizing agents, acids

### 10.4 Conditions to avoid

Warming.

### 10.5 Incompatible materials

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

no information available

## 10.6 Hazardous decomposition products

in the event of fire: See section 5.

---

## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

#### *Acute oral toxicity*

LD50 Rat: ca. 317 mg/kg

OECD Test Guideline 423

Symptoms: After swallowing: irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

#### *Acute inhalation toxicity*

LC50 Rat: 2,63 mg/l; 4 h ; vapour

OECD Test Guideline 403

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages: , damage of respiratory tract

#### *Acute dermal toxicity*

LD50 Rat: > 2.000 mg/kg

OECD Test Guideline 402

Limit Test

#### *Skin irritation*

Rabbit

Result: irritating

OECD Test Guideline 404

Causes mild skin irritation.

#### *Eye irritation*

In vitro study

Result: Irreversible effects on the eye

OECD Test Guideline 437

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

Risk of blindness!

Causes serious eye damage.

### *Sensitisation*

Maximisation Test Guinea pig

Result: negative

Method: OECD Test Guideline 406

### *Germ cell mutagenicity*

#### *Genotoxicity in vitro*

reverse mutation assay

Salmonella typhimurium

Result: negative

Method: OECD Test Guideline 471

In vitro mammalian cell gene mutation test

Mouse lymphoma test

Result: negative

Method: OECD Test Guideline 476

reverse mutation assay

Escherichia coli/Salmonella typhimurium

Result: negative

Method: OECD Test Guideline 471

### *Carcinogenicity*

This information is not available.

### *Reproductive toxicity*

This information is not available.

### *Teratogenicity*

This information is not available.

### *Specific target organ toxicity - single exposure*

May cause respiratory irritation.

Target Organs: Respiratory system

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

### *Specific target organ toxicity - repeated exposure*

This information is not available.

### *Aspiration hazard*

This information is not available.

## **11.2 Further information**

After absorption:

We have no description of any symptoms of toxicity.

Under given conditions, contact with nitrites or nitric acid can lead to the formation of nitrosamines, which have shown themselves to be carcinogenic in animal experiments.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

---

## **SECTION 12. Ecological information**

### **12.1 Toxicity**

#### *Toxicity to fish*

flow-through test LC50 Danio rerio (zebra fish): 69,7 mg/l; 96 h

Analytical monitoring: yes

OECD Test Guideline 203

#### *Toxicity to daphnia and other aquatic invertebrates*

static test EC50 Daphnia magna (Water flea): 28,1 mg/l; 48 h

Analytical monitoring: yes

OECD Test Guideline 202

#### *Toxicity to algae*

static test ErC50 Pseudokirchneriella subcapitata (green algae): 150 mg/l; 72 h

Analytical monitoring: yes

OECD Test Guideline 201

#### *Toxicity to bacteria*

static test EC50 Sewage sludge: 912 mg/l; 3 h

OECD Test Guideline 209

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

*Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)*

semi-static test NOEC Daphnia magna (Water flea): 1,73 mg/l; 21 d

OECD Test Guideline 211

The value is given in analogy to the following substances: N,N-Dimethylisopropylamine

## 12.2 Persistence and degradability

*Biodegradability*

2 %; 28 d; aerobic

OECD Test Guideline 301D

Not readily biodegradable.

## 12.3 Bioaccumulative potential

*Partition coefficient: n-octanol/water*

log Pow: ca. -1,8

OECD Test Guideline 107

Bioaccumulation is not expected.

## 12.4 Mobility in soil

No information available.

## 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

## 12.6 Other adverse effects

*Additional ecological information*

Discharge into the environment must be avoided.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

---

## SECTION 13. Disposal considerations

### *Waste treatment methods*

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

---

## SECTION 14. Transport information

### Land transport (ADR/RID)

14.1 UN number	UN 1992
14.2 Proper shipping name	FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHYL-DIISOPROPYLAMINE)
14.3 Class	3 (6.1)
14.4 Packing group	II
14.5 Environmentally hazardous	--
14.6 Special precautions for user	yes
Tunnel restriction code	D/E

### Inland waterway transport (ADN)

Not relevant

### Air transport (IATA)

14.1 UN number	UN 1992
14.2 Proper shipping name	FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHYL-DIISOPROPYLAMINE)
14.3 Class	3 (6.1)
14.4 Packing group	II
14.5 Environmentally hazardous	--
14.6 Special precautions for user	no

### Sea transport (IMDG)



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

**14.1 UN number** UN 1992  
**14.2 Proper shipping name** FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHYL-DIISOPROPYLAMINE)  
**14.3 Class** 3 (6.1)  
**14.4 Packing group** II  
**14.5 Environmentally hazardous** --  
**14.6 Special precautions for user** yes  
**EmS** F-E S-D  
**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
Not relevant

---

## SECTION 15. Regulatory information

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

#### *EU regulations*

Major Accident Hazard SEVESO III  
Legislation ACUTE TOXIC  
H2  
Quantity 1: 50 t  
Quantity 2: 200 t  
  
SEVESO III  
FLAMMABLE LIQUIDS  
P5c  
Quantity 1: 5.000 t  
Quantity 2: 50.000 t

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at work. Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Regulation (EC) No 1005/2009 on substances that not regulated  
deplete the ozone layer

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 800894  
Product name N-Ethyldiisopropylamine for synthesis

---

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

Substances of very high concern (SVHC) This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of  $\geq 0.1$  % (w/w).

*National legislation*

Storage class 3

## 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

---

## SECTION 16. Other information

### Full text of H-Statements referred to under sections 2 and 3.

H225 Highly flammable liquid and vapour.  
H302 Harmful if swallowed.  
H318 Causes serious eye damage.  
H331 Toxic if inhaled.  
H335 May cause respiratory irritation.

### Training advice

Provide adequate information, instruction and training for operators.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.

800894

Product name

N-Ethyldiisopropylamine for synthesis

---

## Labelling

### Hazard pictograms



### Signal word

Danger

### Hazard statements

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

H335 May cause respiratory irritation.

### Precautionary statements

#### Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P240 Ground/bond container and receiving equipment.

P280 Wear eye protection.

#### Response

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.

P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

#### Storage

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

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	800894
Product name	N-Ethyldiisopropylamine for synthesis

---

## Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

## Regional representation

This information is given on the authorised Safety Data Sheet for your country.

---

*The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.*