### N,N-Diisopropylethylamine

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#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier Product name : N,N-Diisopropylethylamine SDS-number : 00000021712 Type of product : Substance Remarks : SDS according to Art. 31 of Regulation (EC) 1907/2006. Chemical name : Ethyldiisopropylamine CAS-No. : 7087-68-5 **REACH Registration** : no data available Number

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

Use of the	:	Laboratory chemicals
Substance/Mixture		

Uses advised against : none

#### 1.3. Details of the supplier of the safety data sheet

Company	:	Honeywell Specialty Chemicals Seelze GmbH Wunstorfer Straße 40 30926 Seelze Germany	Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
Telephone	:	(49) 5137-999 0	
Telefax	:	(49) 5137-999 123	
For further information,	:	PMTEU Product Stewardship:	
please contact:		SafetyDataSheet@Honeywell.c	com

#### 1.4. Emergency telephone number

Emergency telephone number	:	+1-703-527-3887 (ChemTrec-Transport) +1-303-389-1414 (Medical)
Country based Poison Control Center	:	see chapter 15.1

#### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

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

Flammable liquids Category 2 H225 Highly flammable liquid and vapour. Acute toxicity Category 4 - Oral H302 Harmful if swallowed. Acute toxicity Category 3 - Inhalation H331 Toxic if inhaled. Serious eye damage Category 1 H318 Causes serious eye damage. Specific target organ toxicity - single exposure Category 3 - Respiratory system H335 May cause respiratory irritation.

#### 2.2. Label elements

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

Hazard pictograms



Signal word	:	Danger	
Hazard statements	:	H225 H302 H318 H331 H335	Highly flammable liquid and vapour. Harmful if swallowed. Causes serious eye damage. Toxic if inhaled. May cause respiratory irritation.
Precautionary statemer	nts :	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
		P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
		P280	Wear protective gloves/protective clothing/eye protection/face protection.
		P284	Wear respiratory protection.
		P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
		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.
		P308 + P313	IF exposed or concerned: Get medical advice/ attention.

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Vapours may form explosive mixtures with air.

#### **SECTION 3: Composition/information on ingredients**

#### 3.1. Substance

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
Ethyldiisopropylamine	7087-68-5 230-392-0	Flam. Liq. 2; H225 Acute Tox. 4; H302 Acute Tox. 3; H331 Eye Dam. 1; H318 STOT SE 3; H335	100 %	1*

1\* - For specific concentration limits see Annexes of 1272/2008

#### 3.2. Mixture

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8. For the full text of the H-Statements mentioned in this Section, see Section 16.

#### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

#### General advice:

First aider needs to protect himself. Move out of dangerous area. Take off immediately all contaminated clothing.

#### Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Call a physician immediately.

#### Skin contact:

Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician immediately.

#### Eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Protect unharmed eye. Call a physician immediately.

Ingestion:

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Drink 1 or 2 glasses of water. Call a physician immediately.

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

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no data available

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

Treat symptomatically.

See Section 11 for more detailed information on health effects and symptoms.

#### **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

Suitable extinguishing media: Foam Dry chemical Carbon dioxide (CO2) Water spray

*Extinguishing media which shall not be used for safety reasons:* Do not use a solid water stream as it may scatter and spread fire.

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

Vapours may form explosive mixtures with air. Vapours are heavier than air and may spread along floors. Vapors may travel to areas away from work site before igniting/flashing back to vapor source. In case of fire hazardous decomposition products may be produced such as: carbon oxides (CO, CO2). nitrogen oxides (NOx)

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### **SECTION 6: Accidental release measures**

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

Wear personal protective equipment. Unprotected persons must be kept away. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.

#### 6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Discharge into the environment must be avoided. Do not flush into surface water or sanitary sewer system.

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#### 6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Ventilate the area. Use explosion-proof equipment.

#### 6.4. Reference to other sections

For personal protection see section 8.

#### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

#### Advice on safe handling:

Wear personal protective equipment. Use only in well-ventilated areas. Avoid inhalation, ingestion and contact with skin and eyes.

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

Vapours may form explosive mixtures with air. Flash back possible over considerable distance. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Keep product and empty container away from heat and sources of ignition.

#### Hygiene measures:

Take off all contaminated clothing immediately. Remove and wash contaminated clothing before re-use. Keep working clothes separately. When using do not eat, drink or smoke. Wash hands before breaks and at the end of workday.

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

#### Requirements for storage areas and containers:

Store in area designed for storage of flammable liquids. Protect from physical damage. Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep away from heat and sources of ignition. Keep away from direct sunlight. Protect from atmospheric moisture and water.

#### 7.3. Specific end use(s)

no additional data available

#### **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.



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#### **DNEL/ PNEC-Values**

Component	End- use/impact	Exposure duration	Value	Exposure routes	Remarks
Ethyldiisopropylamine	Workers / Long-term systemic effects		4,2 mg/m3	Inhalation	
Ethyldiisopropylamine	Workers / Acute systemic effects		12,6 mg/m3	Inhalation	
Ethyldiisopropylamine	Workers / Long-term local effects		4,2 mg/m3	Inhalation	
Ethyldiisopropylamine	Workers / Acute local effects		12,6 mg/m3	Inhalation	
Ethyldiisopropylamine	Workers / Long-term systemic effects		2,96mg/kg bw/d	Dermal	
Ethyldiisopropylamine	Consumers / Long-term systemic effects		0,5 mg/m3	Inhalation	
Ethyldiisopropylamine	Consumers / Long-term local effects		0,5 mg/m3	Inhalation	
Ethyldiisopropylamine	Consumers / Long-term systemic effects		1,05mg/kg bw/d	Ingestion	

Component	Environmental compartment / Value	Remarks
Ethyldiisopropylamine	Fresh water: 0,173 mg/l	Assessment factor: 10
Ethyldiisopropylamine	Marine water: 0,017 mg/l	Assessment factor: 100
Ethyldiisopropylamine	Sewage treatment plant: 9,12 mg/l	Assessment factor: 100
Ethyldiisopropylamine	Fresh water sediment: 41,09 mg/kg dw	
Ethyldiisopropylamine	Marine sediment: 4,11 mg/kg dw	

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#### 8.2. Exposure controls

#### Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345. Do not breathe vapours or spray mist.

#### Engineering measures

Local exhaust

#### Personal protective equipment

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection: Glove material: Nitrile rubber Break through time: 480 min Glove thickness: 0,4 mm Camatril® 730 Gloves must be inspected prior to use. Replace when worn. Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy. Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374. Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer reccomends to use the chemical protective glove in practice not longer than 50% of the recomended permeation time. Manufacturer's directions for use should be observed because of great diversity of types . Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

*Eye protection:* Safety goggles

Skin and body protection: Wear suitable protective equipment. Wear as appropriate: Impervious clothing Flame retardant protective clothing

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#### Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

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

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

Colour	:	colourless
Odour	:	amine-like
molecular weight	:	129,24 g/mol
Melting point/range	:	-19,99 °C
Boiling point/boiling range	:	128,33 °C
Flash point	:	12 °C Method: closed cup
Flammability (solid, gas)	:	no data available
Lower explosion limit	:	3 %(V)
Upper explosion limit	:	17 %(V)
Vapour pressure	:	14,25 hPa at 20 °C
Density	:	0,75 g/cm3 at 20 °C
Viscosity, kinematic	:	0,88 mm2/s at 20 °C
рН	:	12,3
Water solubility	:	4,01 g/l at 20 °C
Partition coefficient: n- octanol/water	:	no data available

#### 9.2 Other Information

no additional data available

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#### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No decomposition if stored and applied as directed.

#### 10.2. Chemical stability

Stable under recommended storage conditions.

#### 10.3. Possibility of hazardous reactions

Vapours may form explosive mixture with air.

#### 10.4. Conditions to avoid

Heat, flames and sparks. Keep away from direct sunlight. Protect from moisture.

#### 10.5. Incompatible materials

Acids Strong oxidizing agents Nitrates Nitrous acid and other nitrosating agents Water

#### 10.6. Hazardous decomposition products

In case of fire hazardous decomposition products may be produced such as: carbon oxides (CO, CO2) and nitrogen oxides (NOx).

#### **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

Acute oral toxicity: LD50 Species: Rat Value: ca. 317 mg/kg Method: OECD Test Guideline 423

Acute dermal toxicity: no data available

Acute inhalation toxicity: LC50 Species: Rat Value: 2,63 mg/l

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Exposure time: 4 h Method: OECD Test Guideline 403

Skin irritation: Species: Rabbit Result: slight irritation Method: OECD Test Guideline 404

*Eye irritation:* Result: Risk of serious damage to eyes. Method: OECD 437

Respiratory or skin sensitisation: no data available

Aspiration hazard: no data available

Other information: no data available

#### **SECTION 12: Ecological information**

#### 12.1. Toxicity

*Toxicity to fish:* LC50 flow-through test Species: Danio rerio (zebra fish) Value: 69,7 mg/l Exposure time: 96 h Method: OECD Test Guideline 203

Toxicity to aquatic plants: EC50 Growth rate static test Species: Pseudokirchneriella subcapitata (green algae) Value: 150 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

Toxicity to aquatic invertebrates: EC50 static test Species: Daphnia magna (Water flea) Value: 28,1 mg/l Exposure time: 48 h Method: OECD Test Guideline 202

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#### SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006



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#### 12.2. Persistence and degradability

Biodegradability: Biodegradation: 2 % Exposure time: 28 d Result: Not readily biodegradable. Method: OECD 301 D

#### 12.3. Bioaccumulative potential

no data available

#### 12.4. Mobility in soil

no data available

#### 12.5. Results of PBT and vPvB assessment

no data available

#### 12.6. Other adverse effects

no data available

#### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Product:

Dispose according to legal requirements.

Packaging:

Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

*Further information:* Provisions relating to waste: EC Directive 2006/12/EC; 2008/98/EEC Regulation No. 1013/2006

For personal protection see section 8.

#### **SECTION 14: Transport information**

#### ADR/RID

UN Number	: 2733
Description of the goods	: AMINES, FLAMMABLE, CORROSIVE, N.O.S. (ETHYLDIISOPROPYLAMINE)
Class	3
Packaging group	: 11
Classification Code	: FC
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Hazard Identification Number ADR/RID-Labels Environmentally hazardous	: 338 : 3 (8) : no	
IATA UN Number Description of the goods Class Packaging group Hazard Labels	<ul> <li>2733</li> <li>Amines, flammable, corrosive, n.o.s. (Ethyldiisopropylamine)</li> <li>3</li> <li>II</li> <li>3 (8)</li> </ul>	
IMDG UN Number Description of the goods Class Packaging group Hazard Labels EmS Number Marine pollutant	<ul> <li>2733</li> <li>AMINES, FLAMMABLE, CORROSIVE, N.O.S. (ETHYLDIISOPROPYLAMINE)</li> <li>3</li> <li>II</li> <li>3 (8)</li> <li>F-E, S-C</li> <li>no IMDG Code segregation group 18 – ALKALIS,</li> </ul>	

#### SECTION 15: Regulatory information

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

#### **Poison Control Center**

Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+)35929154233
Croatia	(+3851)23-48-342
Cyprus	no data available
Czech Republic	+420224919293; +420224915402
Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959
Greece	no data available
Hungary	(+36-80)201-199
Iceland	5432222

Country	Phone Number
Latvia	+37167042473
Liechtenstein	no data available
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	no data available
Netherlands	030-2748888
Norway	22591300
Poland	no data available
Portugal	808250143
Romania	no data available
Slovakia (NTIC)	+421 2 54 774 166
Slovenia	no data available
Spain	+34915620420

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no data available

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Sweden

United Kingdom

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Giftinformation);+46104566786

Ireland	+353(1)8092166		
Italy	no data available		
Germany	Berlin : 030/19240		
	Bonn : 0228/19240		
	Erfurt : 0361/730730		
	Freiburg : 0761/19240		
	Göttingen : 0551/19240		
	Homburg : 06841/19240		
	Mainz : 06131/19240		
	Munich : 089/19240		

US. Toxic Substances Control Act On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI) On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act Not in compliance with the inventory

China. Inventory of Existing Chemical Substances On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand On the inventory, or in compliance with the inventory

#### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

#### **SECTION 16: Other information**

#### Text of H-statements referred to under heading 3

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Ethyldiisopropylamine	: H225 H302 H318 H331 H335	Highly flammable liquid Harmful if swallowed. Causes serious eye dar Toxic if inhaled. May cause respiratory i	nage.

#### **Further information**

All directives and regulations refer to amended versions. Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abreviations:

EC European Community CAS Chemical Abstracts Service DNEL Derived no effect level PNEC Predicted no effect level vPvB Very persistent and very biaccumulative substance PBT Persistent, bioaccmulative und toxic substance

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. Final determination of suitability of any material is the sole responsibility of the user.

This information should not constitute a guarantee for any specific product properties.