

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Honeywell

Nonane

N29406-500ML

Version 1.2

Revision Date 12.09.2018

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

1.1. Product identifier

Product name : Nonane

SDS-number : 000000020756

Type of product : Substance

Remarks : SDS according to Art. 31 of Regulation (EC) 1907/2006.

Chemical name : Nonane

CAS-No. : 111-84-2

REACH Registration Number : no data available

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

Use of the Substance/Mixture : Laboratory chemicals

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, please contact:	: PMTEU Product Stewardship: SafetyDataSheet@Honeywell.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

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2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Flammable liquids Category 3
H226 Flammable liquid and vapour.
Aspiration hazard Category 1
H304 May be fatal if swallowed and enters airways.
Skin irritation Category 2
H315 Causes skin irritation.
Specific target organ toxicity - single exposure Category 3 - Inhalation - Central nervous system
H336 May cause drowsiness or dizziness.
Short-term (acute) aquatic hazard Category 1
H400 Very toxic to aquatic life.
Long-term (chronic) aquatic hazard Category 1
H410 Very toxic to aquatic life with long lasting effects.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms	:											
Signal word	:	Danger										
Hazard statements	:	<table><tr><td>H226</td><td>Flammable liquid and vapour.</td></tr><tr><td>H304</td><td>May be fatal if swallowed and enters airways.</td></tr><tr><td>H315</td><td>Causes skin irritation.</td></tr><tr><td>H336</td><td>May cause drowsiness or dizziness.</td></tr><tr><td>H410</td><td>Very toxic to aquatic life with long lasting effects.</td></tr></table>	H226	Flammable liquid and vapour.	H304	May be fatal if swallowed and enters airways.	H315	Causes skin irritation.	H336	May cause drowsiness or dizziness.	H410	Very toxic to aquatic life with long lasting effects.
H226	Flammable liquid and vapour.											
H304	May be fatal if swallowed and enters airways.											
H315	Causes skin irritation.											
H336	May cause drowsiness or dizziness.											
H410	Very toxic to aquatic life with long lasting effects.											
Precautionary statements	:	<table><tr><td>P210</td><td>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</td></tr><tr><td>P280</td><td>Wear protective gloves/ eye protection/ face protection.</td></tr><tr><td>P301 + P330 + P331</td><td>IF SWALLOWED: rinse mouth. Do NOT induce vomiting.</td></tr><tr><td>P304 + P340</td><td>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</td></tr><tr><td>P308 + P313</td><td>IF exposed or concerned: Get medical advice/ attention.</td></tr></table>	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	P280	Wear protective gloves/ eye protection/ face 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.	P308 + P313	IF exposed or concerned: Get medical advice/ attention.
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P308 + P313	IF exposed or concerned: Get medical advice/ attention.											

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2.3. Other hazards

Vapours may form explosive mixtures with air. Vapours are heavier than air and may spread along floors.

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
Nonane	111-84-2 203-913-4	Flam. Liq. 3; H226 Skin Irrit. 2; H315 STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	100 %	1* M = 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 all contaminated clothing immediately. If unconscious, place in recovery position and seek medical advice.

Inhalation:

If breathed in, move person into fresh air. Call a physician immediately.

Skin contact:

After contact with skin, wash immediately with plenty of water. If symptoms persist, call a physician.

Eye contact:

Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. Remove contact lenses. Call a physician immediately.

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Ingestion:

When swallowed, allow water to be drunk. Do NOT induce vomiting. Call a physician immediately.

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

no data available

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

no data available

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray

Foam

Carbon dioxide (CO₂)

Dry powder

Extinguishing media which shall not be used for safety reasons:

High volume water jet

5.2. Special hazards arising from the substance or mixture

Vapours may form explosive mixtures with air.

Flash back possible over considerable distance.

Fire may cause evolution of:

Carbon monoxide

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

No unprotected exposed skin areas.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Do not use a solid water stream as it may scatter and spread fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition.

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6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so.

6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material.
Pick for disposal in tightly closed containers
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. Exhaust ventilation at the object is necessary. Keep limited supplies at workplace. Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion:

Use only in explosion-proof areas. The heavy vapours can overcome a considerable distance up to the source of ignition. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment.

Hygiene measures:

General industrial hygiene practice. Recommended preventive skin protection

Temperature class:

T3

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:

Store in original container. Keep tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

no additional data available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

DNEL/ PNEC-Values

No DNEL-data available.

No PNEC data available.

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.

Ensure that eyewash stations and safety showers are close to the workstation location.

Do not breathe vapours or spray mist.

Avoid contact with skin, eyes and clothing.

Recommended preventive skin protection

Engineering measures

Use with local exhaust ventilation.

Personal protective equipment

Respiratory protection:

In the case of vapour formation use a respirator with an approved filter.

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.

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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 recommends to use the chemical protective glove in practice not longer than 50% of the recommended 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 glasses with side-shields

Skin and body protection:

Protective suit

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

Form	: liquid
Colour	: colourless
Odour	: characteristic
molecular weight	: 128,26 g/mol
Melting point/range	: -53 °C
Boiling point/boiling range	: 151 °C at 1.013 hPa
Flash point	: 31 °C Method: closed cup
Ignition temperature	: 205 °C
Lower explosion limit	: 0,87 %(V)
Upper explosion limit	: 2,9 %(V)

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Vapour pressure	:	5,7 hPa at 25 °C
Vapour pressure	:	24,1 hPa at 50 °C
Density	:	ca. 0,72 g/cm ³ at 20 °C
Viscosity, dynamic	:	1 mPa.s at 20 °C
Viscosity, kinematic	:	1,008 mm ² /s at 20 °C
pH	:	no data available
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	Pow: 5,65
Relative vapour density	:	no data available
Evaporation rate	:	no data available

9.2 Other Information

no additional data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

No decomposition if used as directed.

10.3. Possibility of hazardous reactions

Formation of explosive gas/air mixtures.

10.4. Conditions to avoid

Keep product and empty container away from heat and sources of ignition.

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Keep away from direct sunlight.

10.5. Incompatible materials

Oxidizing agents
Plastic materials can be attacked.

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

Not classified due to data which are conclusive although insufficient for classification.

Acute dermal toxicity:

Not classified due to data which are conclusive although insufficient for classification.

Acute inhalation toxicity:

Not classified due to data which are conclusive although insufficient for classification.

Skin irritation:

Conclusive and supporting classification (Ref: REACH Dossier - ECHA disseminated data)

Eye irritation:

Not classified due to data which are conclusive although insufficient for classification.

Respiratory or skin sensitisation:

Not classified due to data which are conclusive although insufficient for classification.

Carcinogenicity:

Note: no data available

Germ cell mutagenicity:

Note: Not classified due to data which are conclusive although insufficient for classification.

Aspiration hazard:

Conclusive and supporting classification (Ref: REACH Dossier - ECHA disseminated data)

Other information:

Solvent removes skin oil from the skin.

Solvent vapours have a narcotic effect if inhaled in high concentrations.

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SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish:

Conclusive and supporting classification (Ref: REACH Dossier - ECHA disseminated data)

Toxicity to aquatic plants:

no data available

Toxicity to aquatic invertebrates:

static test

Species: Daphnia magna (Water flea)

Value: 0,2 mg/l

Exposure time: 48 h

12.2. Persistence and degradability

Biodegradability:

aerobic

Biodegradation: 100 %

Exposure time: 15 d

Result: rapidly biodegradable

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

Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:

Dispose according to legal requirements.

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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 : 1920
Description of the goods : NONANES
Class : 3
Packaging group : III
Classification Code : F1
Hazard Identification : 30
Number
ADR/RID-Labels : 3
Environmentally hazardous : yes

IATA

UN Number : 1920
Description of the goods : Nonanes
Class : 3
Packaging group : III
Hazard Labels : 3

IMDG

UN Number : 1920
Description of the goods : NONANES
Class : 3
Packaging group : III
Hazard Labels : 3
EmS Number : F-E, S-E
Marine pollutant : yes

SECTION 15: Regulatory information

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

Poison Control Center

Country	Phone Number	Country	Phone Number
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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
Ireland	+353(1)8092166
Italy	+39 0649906140
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
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
Sweden	112 (begär Giftinformation);+46104566786
Switzerland	145
United Kingdom	no data available

Other inventory information

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

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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

On the inventory, or 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

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.

Abbreviations:

EC European Community

CAS Chemical Abstracts Service

DNEL Derived no effect level

PNEC Predicted no effect level

vPvB Very persistent and very bioaccumulative substance

PBT Persistent, bioaccumulative and 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.

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