

## 1,2-Dichloroethane

319929-20L

Version 1.5

Revision Date 11.03.2021

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

#### 1.1. Product identifier

Product name : 1,2-Dichloroethane

SDS-number : 000000020527

Type of product : Substance

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

Chemical name : 1,2-dichloroethane; ethylene dichloride

Index-No. : 602-012-00-7

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	
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

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### SECTION 2: Hazards identification

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

##### 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.  
Skin irritation Category 2  
H315 Causes skin irritation.  
Eye irritation Category 2  
H319 Causes serious eye irritation.  
Carcinogenicity Category 1B  
H350 May cause cancer.  
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 Highly flammable liquid and vapour.  
H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H335 May cause respiratory irritation.  
H350 May cause cancer.

Precautionary statements

: 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.  
P302 + P352 IF ON SKIN: Wash with plenty of water.  
P304 + P340 IF INHALED: Remove person to fresh

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P305 + P351 + P338 air and keep comfortable for breathing.  
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.

Special labelling of certain products : Restricted to professional users.

### 2.3. Other hazards

Dermal absorption possible 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
1,2-dichloroethane; ethylene dichloride	107-06-2 602-012-00-7 203-458-1	Flam. Liq. 2; H225 Acute Tox. 4; H302; Oral Acute Tox. 3; H331; Inhalation Skin Irrit. 2; H315 Eye Irrit. 2; H319 Carc. 1B; H350 STOT SE 3; H335; Respiratory system	<= 100 %	

### 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.

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### 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:*

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

*Skin contact:*

After contact with skin, wash immediately with plenty of soap and water. Consult a physician.

*Eye contact:*

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

*Ingestion:*

When swallowed, allow water to be drunk. 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.

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

*Suitable extinguishing media:*

Water spray  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
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.  
Vapours are heavier than air and may spread along floors.  
Fire may cause evolution of:  
Carbon oxides  
Phosgene  
Gaseous hydrogen chloride (HCl).

#### 5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.  
Do not use a solid water stream as it may scatter and spread fire. Use water spray to cool unopened containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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### SECTION 6: Accidental release measures

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

Use personal protective equipment. Evacuate personnel to safe areas. 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. Do not flush into surface water or sanitary sewer system.

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

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Soak up with inert absorbent material.  
Pick for disposal in tightly closed containers

### 6.4. Reference to other sections

For personal protection see section 8.

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

*Advice on safe handling:*

Exhaust ventilation at the object is necessary. Wear personal protective equipment. Avoid inhalation, ingestion and contact with skin and eyes.

*Advice on protection against fire and explosion:*

Keep away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge.

*Hygiene measures:*

Usual hygienic precautions must be taken when working with dangerous cancer causing substances.

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

*Further information on storage conditions:*

Store in original container. Keep containers 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

##### Occupational exposure limits:

Components	Basis / Value type	Value / Form of exposure	Exceeding Factor	Remarks
1,2-dichloroethane; ethylene dichloride	EH40 WEL SKIN_DES			Can be absorbed through the skin.
1,2-dichloroethane; ethylene dichloride	EH40 WEL TWA	21 mg/m3 5 ppm		
1,2-dichloroethane; ethylene dichloride	EU OELIII SKIN_DES			Can be absorbed through the skin.
1,2-dichloroethane; ethylene dichloride	EU OELIII TWA	8,2 mg/m3 2 ppm		

SKIN\_DES - Skin designation:

TWA - Time weighted average

##### DNEL/ PNEC-Values

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
1,2-dichloroethane; ethylene dichloride	Workers / Long-term systemic effects		6,6 mg/m3	Inhalation	
1,2-dichloroethane; ethylene dichloride	Workers / Long-term systemic effects		62,4mg/kg bw/d	Skin contact	
1,2-dichloroethane; ethylene dichloride	Consumers / Long-term systemic effects		2,9µg/m3	Inhalation	

Component	Environmental compartment / Value	Remarks
1,2-dichloroethane; ethylene dichloride	Fresh water: 1,1 mg/l	Assessment factor: 10
1,2-dichloroethane; ethylene dichloride	Marine water: 0,11 mg/l	Assessment factor:

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		100
1,2-dichloroethane; ethylene dichloride	Sewage treatment plant: 27,8 mg/l	Assessment factor: 100
1,2-dichloroethane; ethylene dichloride	Fresh water sediment: 11,1 mg/kg dw	
1,2-dichloroethane; ethylene dichloride	Marine sediment: 1,11 mg/kg dw	
1,2-dichloroethane; ethylene dichloride	Soil: 1,8 mg/kg dw	

### 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.

Avoid exposure - obtain special instructions before use.

#### 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: Viton®

Break through time: > 480 min

Glove thickness: 0,7 mm

Vitoject® 890

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 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



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*Eye protection:*

Safety goggles

*Skin and body protection:*

Flame retardant antistatic protective clothing.

### 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

Physical state	: liquid
Colour	: colourless
Odour	: characteristic
molecular weight	: 98,96 g/mol
Melting point/range	: ca. -35 °C
Boiling point/boiling range	: ca. 83 °C
Flammability	: Not applicable
Upper explosion limit	: 16 %(V)
Lower explosion limit	: 6,2 %(V)
Flash point	: ca. 13 °C at 1.013 hPa Method: DIN 51755
Auto-ignition temperature	: 440 °C at 1.013 hPa Method: DIN 51794
pH	: No data available
Viscosity, kinematic	: No data available
Water solubility	: 7,9 g/l

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Partition coefficient: n-octanol/water : Pow: 1,45  
at 25 °C  
Method: OECD Test Guideline 105  
at: 20 °C  
Method: OECD Test Guideline 107

Vapour pressure : 102,5 hPa  
at 25 °C

Density : 1,25 g/cm<sup>3</sup>  
at 25 °C

Relative vapour density : No data available

### 9.2 Other Information

Evaporation rate : No data available

Viscosity, dynamic : 0,83 mPa.s  
at 20 °C

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions.

### 10.2. Chemical stability

May decompose on long exposure to light.

### 10.3. Possibility of hazardous reactions

Vapours may form explosive mixture with air.

### 10.4. Conditions to avoid

Heat, flames and sparks.  
Exposure to light.

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### 10.5. Incompatible materials

Strong oxidizing agents  
Metals

### 10.6. Hazardous decomposition products

Hydrogen chloride gas  
Phosgene  
carbon oxides (CO, CO<sub>2</sub>).

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### *Acute oral toxicity:*

Classification based on Annex VI of regulation 1272/2008/EC.

#### *Acute dermal toxicity:*

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

#### *Acute inhalation toxicity:*

LC50

Species: Rat

Value: 7,76 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

#### *Skin irritation:*

Classification based on Annex VI of regulation 1272/2008/EC.

#### *Eye irritation:*

Classification based on Annex VI of regulation 1272/2008/EC.

#### *Respiratory or skin sensitisation:*

Species: Mouse

Result: Not a skin sensitizer.

Method: OECD Test Guideline 429

#### *Repeated dose toxicity:*

Note: No data available

#### *Carcinogenicity:*

Note: Classification based on Annex VI of regulation 1272/2008/EC.

#### *Germ cell mutagenicity:*

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

*Reproductive toxicity:*

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

*Aspiration hazard:*

No data available

### 11.2. Information on other hazards

Endocrine disrupting properties

No data available

*Other information:*

No data available

## SECTION 12: Ecological information

### 12.1. Toxicity

*Toxicity to fish:*

LC50

flow-through test

Species: Pimephales promelas (fathead minnow)

Value: 136 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

*Toxicity to aquatic plants:*

static test

Species: Selenastrum capricornutum (green algae)

Value: 166 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

*Toxicity to Microorganisms:*

IC50

static test

Species: activated sludge

Value: 2.780 mg/l

Exposure time: 24 h

*Toxicity to aquatic invertebrates:*

EC50

static test

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Species: *Daphnia magna* (Water flea)

Value: 160 mg/l

Exposure time: 48 h

*Chronic toxicity to aquatic invertebrates:*

NOEC

Species: *Daphnia magna* (Water flea)

Value: 11 mg/l

Exposure time: 28 d

### 12.2. Persistence and degradability

*Biodegradability:*

aerobic

Biodegradation: > 90 %

Exposure time: 20 d

Result: rapidly biodegradable

### 12.3. Bioaccumulative potential

Species: *Lepomis macrochirus* (Bluegill sunfish)

Concentration: 95,6 µg/l

Bioconcentration factor (BCF): 2

Elimination: yes

Exposure time: 14 d

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

No data available

### 12.6. Endocrine disrupting properties

No data available

### 12.7. Other adverse effects

Product contains organic halogen, may contribute to AOX value.

Do not flush into surface water or sanitary sewer system.

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### 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

#### 14.1 UN number

ADR/RID:1184

IMDG:1184

IATA:1184

#### 14.2 UN proper shipping name

ADR/RID:ETHYLENE DICHLORIDE

IMDG:ETHYLENE DICHLORIDE

IATA:Ethylene dichloride

#### 14.3 Transport hazard class(es)

ADR/RID: 3 (6.1)

IMDG: 3 (6.1)

IATA: 3 (6.1)

#### 14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

#### 14.5 Environmental hazards

ADR/RID:no

Marine pollutant: no

#### 14.6 Special precautions for user

No data available

#### 14.7 Maritime transport in bulk according to IMO instruments

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No data available

### SECTION 15: Regulatory information

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

Basis	Value	Remarks
Regulation (EC) No. 1907/2006, Annex XIV		This product contains an ingredient according to Annex XIV of the REACH Regulation 1907/2006/EC.
Substances of very high concern (SVHC)		This product does contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of $\geq 0.1$ % (w/w).
Regulation (EC) No. 1907/2006, Annex XVII		This product contains an ingredient according to Annex XVII of the REACH Regulation 1907/2006/EC.

#### Poison Control Center

Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+359)29154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
Czech Republic	+420224919293; +420224915402
Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959
Greece	+30 210 779 3777
Hungary	(+36-80)201-199

Country	Phone Number
Liechtenstein	+41 442515151
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000
Netherlands	030-2748888
Norway	22591300
Poland	+48 42 25 38 400
Portugal	808250143
Romania	+40 21 318 3606
Slovakia (NTIC)	+421 2 54 774 166
Slovenia	+386 1 400 6051
Spain	+34915620420

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Iceland	5432222	Sweden	112 (begär Gifinformation);+46104566786
Ireland	+353(1)8092166	Switzerland	145
Italy	0382 24444	United Kingdom	(+44) 844 892 0111
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		

### 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  
On the inventory, or in compliance with the inventory

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

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)  
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)  
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



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### 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

1,2-dichloroethane; ethylene dichloride	:	H225	Highly flammable liquid and vapour.
		H302	Harmful if swallowed.
		H331	Toxic if inhaled.
		H315	Causes skin irritation.
		H319	Causes serious eye irritation.
		H350	May cause cancer.
		H335	May cause respiratory irritation.

### 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.

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

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