

1,2-Dichloroethane**03530-1L**

Version 1.3

Revision Date 10/19/2020

Print Date 05/29/2023

SECTION 1. IDENTIFICATION

Product name : 1,2-Dichloroethane

Number : 000000020527

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell Specialty Chemicals Seelze GmbH
Wunstorfer Straße 40
Seelze, 30926

For more information call : 1-800-368-0050
+1-231-726-3171(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or**
: **+1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : liquid

Color : colourless

Odor : characteristic

Classification of the substance or mixture

Classification of the substance or mixture : Flammable liquids, Category 2
Acute toxicity, Category 4, Oral
Acute toxicity, Category 3, Inhalation
Skin irritation, Category 2
Eye irritation, Category 2A
Carcinogenicity, Category 1B
Specific target organ toxicity - single exposure, Category 3,

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Respiratory system

GHS Label elements, including precautionary statements

Symbol(s)

:



Signal word

: Danger

Hazard statements

:
Highly flammable liquid and vapour.
Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
Toxic if inhaled.
May cause respiratory irritation.
May cause cancer.

Precautionary statements

:
Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

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rinsing.
Call a POISON CENTER/ doctor.
Rinse mouth.
If skin irritation occurs: Get medical advice/ attention.
If eye irritation persists: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

Store in a well-ventilated place. Keep container tightly closed.
Keep cool.
Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Carcinogenicity

NTP: 1,2-Dichloroethane 107-06-2
Reasonably Anticipated to be a Human Carcinogen.

IARC: 1,2-Dichloroethane 107-06-2
Group 2B: Possibly carcinogenic to humans

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C₂H₄Cl₂

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
1,2-Dichloroethane	107-06-2	<=100.00 %

SECTION 4. FIRST AID MEASURES

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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.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Water spray Foam Carbon dioxide (CO2) Dry powder
Unsuitable extinguishing media	: Do not use a solid water stream as it may scatter and spread fire.
Specific hazards during firefighting	: Flammable. 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. Fire may cause evolution of: Carbon oxides Phosgene Hydrogen chloride gas
Special protective equipment for firefighters	: Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear.
Further information	: Use water spray to cool unopened containers. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Wear personal protective equipment. Unprotected persons must be kept away.
Ensure adequate ventilation.
Remove all sources of ignition.
Avoid inhalation of vapour or mist.
Avoid contact with skin, eyes and clothing.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.
- Methods and materials for containment and cleaning up : Ventilate the area.
Do not use sparking tools.
Use explosion-proof equipment.
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE**Handling**

- Precautions for 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 : Keep product and empty container away from heat and sources of ignition.
No smoking.
Take precautionary measures against static discharges.
Vapours may form explosive mixtures with air.

Storage

- Conditions for safe storage, including any incompatibilities : Store in area designed for storage of flammable liquids. Protect from physical damage.
Keep containers tightly closed in a dry, cool and well-ventilated

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place.
Store in original container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.
Avoid exposure - obtain special instructions before use.
- Engineering measures : Use with local exhaust ventilation.
- Eye protection : Safety goggles
- Hand protection : Impervious gloves
Gloves must be inspected prior to use.
Replace when worn.
- Skin and body protection : Flame retardant antistatic protective clothing.
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
1,2-Dichloroethane	107-06-2	TWA : Time weighted average	(10 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values, as amended
1,2-Dichloroethane	107-06-2	STEL : Short term exposure limit	8 mg/m3 (2 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended

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1,2-Dichloroethane	107-06-2	REL : Recommended exposure limit (REL):	4 mg/m3 (1 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
1,2-Dichloroethane	107-06-2	TWA : Time weighted average	4 mg/m3 (1 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
1,2-Dichloroethane	107-06-2	STEL : Short term exposure limit	8 mg/m3 (2 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
1,2-Dichloroethane	107-06-2	Ceiling : Ceiling Limit Value:	(100 ppm)	02 2006	OSHA/Z2:US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
1,2-Dichloroethane	107-06-2	TWA : Time weighted average	(50 ppm)	02 2006	OSHA/Z2:US. OSHA Table Z-2 (29 CFR 1910.1000), as amended
1,2-Dichloroethane	107-06-2	MAX. CONC : Maximum concentration:	(200 ppm)	02 2006	OSHA/Z2:US. OSHA Table Z-2 (29 CFR 1910.1000), as amended

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid

Color : colourless

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Odor	: characteristic
pH	: Note: No data available
Melting point/range	: ca. -35 °C
Boiling point/boiling range	: ca. 83 °C
Flash point	: ca. 55 °F (13 °C) at 1,013 hPa Method: DIN 51755
Evaporation rate	: Note: No data available
Flammability	: Not applicable
Lower explosion limit	: 6.2 %(V)
Upper explosion limit	: 16 %(V)
Vapor pressure	: 102.5 hPa at 25 °C(77 °F)
Vapor density	: Note: No data available
Density	: 1.25 g/cm ³ at 25 °C
Water solubility	: 7.9 g/l at 25 °C Method: OECD Test Guideline 105
Partition coefficient: n-octanol/water	: Pow: 1.45 at 20 °C Method: OECD Test Guideline 107
Ignition temperature	: 440 °C at 1,013 hPa

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Method: DIN 51794

Decomposition temperature : Note: May decompose on long exposure to light.

Viscosity, dynamic : 0.83 mPa.s at 20 °C

Viscosity, kinematic : Note: No data available

Molecular weight : 98.96 g/mol

SECTION 10. STABILITY AND REACTIVITY

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : Vapours may form explosive mixture with air.
Hazardous polymerisation does not occur.Conditions to avoid : Heat, flames and sparks.
Exposure to light.Incompatible materials : Strong oxidizing agents
MetalsHazardous decomposition products : Hydrogen chloride gas
Phosgene
carbon oxides (CO, CO₂).**SECTION 11. TOXICOLOGICAL INFORMATION**Acute oral toxicity : Note: Classification based on Annex VI of regulation
1272/2008/EC.Acute inhalation toxicity : LC50: 7.76 mg/l , vapour
Exposure time: 4 h

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Species: Rat
Method: OECD Test Guideline 403

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

Skin irritation : Result: Irritating to skin.

Eye irritation : Result: Irritating to eyes.

Sensitisation : Species: Mouse
Result: Not a skin sensitizer.
Method: OECD Test Guideline 429

Repeated dose toxicity : Note: No data available

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

Carcinogenicity : Species: not specified
Note: Classification based on Annex VI of regulation 1272/2008/EC.

Reproductive toxicity : Species: not specified
Note: Not classified due to data which are conclusive although insufficient for classification.

Aspiration toxicity : No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish : flow-through test

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LC50: 136 mg/l
Exposure time: 96 h
Species: Pimephales promelas (fathead minnow)
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : static test
EC50: 160 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

Toxicity to algae : static test
166 mg/l
Exposure time: 72 h
Species: Selenastrum capricornutum (green algae)
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 11 mg/l
Exposure time: 28 d
Species: Daphnia magna (Water flea)

Elimination information (persistence and degradability)

Biodegradability : aerobic
Result: rapidly biodegradable
Value: > 90 %

Further information on ecology

Additional ecological information : Do not flush into surface water or sanitary sewer system.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT UN/ID No. : UN 1184
Proper shipping name : ETHYLENE DICHLORIDE

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Class	3
Packing group	II
Hazard Labels	3 (6.1)

IATA	UN/ID No.	: UN 1184
	Description of the goods	: ETHYLENE DICHLORIDE
	Class	: 3
	Packaging group	: II
	Hazard Labels	: 3 (6.1)
	Packing instruction (cargo aircraft)	: 364
	Packing instruction (passenger aircraft)	: 352
	Packing instruction (passenger aircraft)	: Y341

IMDG	UN/ID No.	: UN 1184
	Description of the goods	: ETHYLENE DICHLORIDE
	Class	: 3
	Packaging group	: II
	Hazard Labels	: 3 (6.1)
	EmS Number	: F-E, S-D
	Marine pollutant	: no

SECTION 15. REGULATORY INFORMATION**Inventories**

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 : On the inventory, or in compliance with the inventory

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Inventory (KECI)

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 (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

TSCA 12B : US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

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National regulatory information

US. EPA CERCLA Hazardous Substances (40 CFR 302) : The following component(s) of this product is/are subject to release reporting under 40 CFR 302 when release exceeds the Reportable Quantity (RQ):

Reportable quantity: 100 lbs
: 1,2-Dichloroethane 107-06-2

SARA 302 Components : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components : The following components are subject to reporting levels established by SARA Title III, Section 313:
: 1,2-Dichloroethane 107-06-2

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard
Chronic Health Hazard

CERCLA Reportable Quantity : 100 lbs

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California Prop. 65

:



WARNING: This product can expose you to chemicals, listed below, known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

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Massachusetts RTK

:

1,2-Dichloroethane

107-06-2

New Jersey RTK

:

1,2-Dichloroethane

107-06-2

Pennsylvania RTK

:

1,2-Dichloroethane

107-06-2

SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 2*	2
Flammability	: 3	3
Physical Hazard	: 0	
Instability	:	0

* - Chronic health hazard

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

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.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group