

Oxalyl dichloride

Print date 09.05.2023
Revision date 09.05.2023
Version 18.0 (en)
replaces version of 22.10.2018 (17.0)

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

1.1 Product identifier

Trade name/designation Oxalyl dichloride
Art-Nr(n). 2530
Substance name Oxalyl dichloride
EC No. 201-200-2
REACH No. 01-2119955690-32
CAS No. 79-37-8

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

* **Use of the substance/mixture**
Use only as an intermediate under strictly controlled conditions.

1.3 Details of the supplier of the safety data sheet

Supplier
GHC Gerling, Holz & Co. Handels GmbH
Ruhrstraße 113
D-22761 Hamburg
Telephone +49 40 853 123 0
E-mail hamburg@ghc.de
Website www.ghc.com

Department responsible for information:
GHC Gerling, Holz & Co. Handels GmbH
Telephone +49 40 853 123 0

E-mail (competent person):
msds@ghc.de

* **1.4 Emergency telephone number**

EN: Poison Information Center Mainz +49 6131 19240

* **SECTION 2: Hazards identification**

* **2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [CLP]	Classification procedure
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Water-react. 1, H260

Acute Tox. 3, H301

Acute Tox. 3, H331

Skin Corr. 1B, H314

Hazard statements for physical hazards

H260 In contact with water releases flammable gases which may ignite spontaneously.

Hazard statements for health hazards

H301 Toxic if swallowed.

H314 Causes severe skin burns and eye damage.

H331 Toxic if inhaled.

* **2.2 Label elements**

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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Hazard pictograms

GHS02



GHS05



GHS06

Signal word

Danger

Hazard statements

H260 In contact with water releases flammable gases which may ignite spontaneously.
 H301 Toxic if swallowed.
 H314 Causes severe skin burns and eye damage.
 H331 Toxic if inhaled.

Precautionary statements

P223 Do not allow contact with water.
 P260 Do not breathe mist/vapours.
 P280 Wear protective gloves/protective clothing and eye/face protection.
 P308 IF exposed or concerned:
 P315 Get immediate medical advice/attention.
 P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.

Supplemental hazard information

EUH014 Reacts violently with water.
 EUH029 Contact with water liberates toxic gas.
 EUH071 Corrosive to the respiratory tract.

*** 2.3 Other hazards**

- * **Adverse human health effects and symptoms**
 Dangerous substances are released in case of decomposition.
 Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.
- * **Other adverse effects**
 The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
- * **Results of PBT and vPvB assessment**
 The substance/mixture does not contain components meeting the PBT/vPvB criteria of the Reach Regulation, Annex XIII, at levels of 0.1% or higher.

*** SECTION 3: Composition / information on ingredients***** 3.1 Substances**

Substance name	Oxalyl dichloride
EC No.	201-200-2
REACH No.	01-2119955690-32
CAS No.	79-37-8
ATE	ATE(inhalation gas): 1840 ppm

Additional information

Content: > 99 %

Remark

Impurity: <= 0,2 % Trichloroacetyl chloride (CAS No: 76-02-8, EC No: 200-926-7).

3.2 Mixtures

not applicable

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* **SECTION 4: First aid measures**

* **4.1 Description of first aid measures**

General information

Remove contaminated, saturated clothing immediately.
First aider: Pay attention to self-protection!
Call a physician immediately.

* **Following inhalation**

Remove casualty to fresh air and keep warm and at rest.
In case of breathing difficulties give oxygen.
In the event of pulmonary irritation treat initially with corticoid spray, e.g. Ventolair- or Pulmicort- metered-dose aerosol (Ventolair and Pulmicort are registered trademarks).
In case of respiratory standstill give artificial respiration by respiratory bag (Ambu bag) or respirator. Obtain medical assistance.

* **Following skin contact**

Remove mechanically (e.g. dab away using wadding or cellulose material) then thoroughly wash the affected skin with a mild cleansing agent and water.
Call a physician immediately.

* **After eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical assistance.

Following ingestion

Do NOT induce vomiting.
Rinse mouth immediately and drink plenty of water.
Call a physician immediately.

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

* **Symptoms**

Redness / blebs on the skin.
Cardiac arrhythmias
Respiratory tract irritation
Impairment of vision
Strong eye irritation.

Effects

Pulmonary oedema

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor

Treat symptomatically.
Pulmonary oedema prophylaxis.

* **SECTION 5: Firefighting measures**

5.1 Extinguishing media

Suitable extinguishing media

Extinguishing powder
Carbon dioxide (CO₂)
Sand

Unsuitable extinguishing media

Water
Foam

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

* **Hazardous combustion products**

Carbon monoxide
Carbon dioxide (CO₂)
Hydrogen chloride (HCl)
Phosgene

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* **5.3 Advice for firefighters**

- * **Special protective equipment for firefighters**
Wear a self-contained breathing apparatus and chemical protective clothing.

* **Additional information**

Exposure to fire may cause rupture / explosion of the containers.
Dispose of fire residues and contaminated extinguishing water in accordance with local, official regulations.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Fire fighting water forms corrosive acid solutions.

* **SECTION 6: Accidental release measures**

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

- * **For non-emergency personnel**
Use personal protection equipment.
Leave the danger area.
Keep people away and stay on the upwind side.
- * **For emergency responders**
Personal protection by wearing close-fitting protective clothing and breathing apparatus.
Pay attention to extension of gas especially at ground (heavier than air) and in direction of the wind.
Remove persons to safety.
Eliminate all ignition sources if safe to do so.

* **6.2 Environmental precautions**

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not allow to enter into soil/subsoil.
Do not allow to enter into surface water or drains.

* **6.3 Methods and material for containment and cleaning up**

- * **For containment**
Keep at a distance of water, take up dry, wear breathing apparatus and personal protective clothing.
Suitable material for taking up:
Kieselguhr
- For cleaning up**
Clean contaminated articles and floor according to the environmental legislation.

* **6.4 Reference to other sections**

Disposal: see section 13
Personal protection equipment: see section 8

* **SECTION 7: Handling and storage**

* **7.1 Precautions for safe handling**

- * **Protective measures**
Transfer and handle product only in closed systems.
Open container only under local exhaust ventilation.
If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.
If the product is discharged from bung-hole drums: Cool down the product to -5 °C before the bung-hole is opened.
Usual measures for fire prevention.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Take precautionary measures against static discharges. Ground barrels and installations. Use only antistatically equipped (spark-free) tools.
Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.
Keep the packing dry and well sealed to prevent contamination and absorption of humidity.
Suck back of water into the container must be prevented.
No water to valves, flanges and other fittings.
Purging of pipes and valves with inert gases - to avoid: water, solvents.

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* **Advices on general occupational hygiene**

When using do not eat, drink, smoke, sniff.
Wash hands before breaks and after work.
Remove contaminated clothing and protective equipment before entering eating areas.
Use protective skin cream before handling the product.

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

* **Requirements for storage rooms and vessels**

All regulations and local requirements for the storage of containers have to be respected.
Keep container tightly closed and in a well-ventilated place.
Only use containers specifically approved for the substance/product.

Storage class

4.3 Hazardous substances that release flammable gases when in contact with water

* **Materials to avoid**

Do not store together with explosives.
Do not store with gases.
Do not store together with flammable liquids.
Do not store together with oxidizing liquids or oxidizing solids.
Do not store together with toxic liquids or toxic solids.
Do not store together with infectious substances.
Do not store together with radioactive material.
Do not store together with food or feed.

* **Further information on storage conditions**

Protect from heat/overheating.
Recommended storage temperature: ≤ 25 °C.

* **7.3 Specific end use(s)**

* **Recommendation**

Use only as an intermediate under strictly controlled conditions.

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

* **8.1 Control parameters**

No data available

* **8.2 Exposure controls**

* **Appropriate engineering controls**

* **Technical measures to prevent exposure**

Transfer and handle only in enclosed systems.
Use only as an intermediate under strictly controlled conditions.

* **Personal protection equipment**

Eye/face protection

Protective goggles according to EN 166, in case of increased risk add protective face shield.

* **Hand protection**

Safety gloves according to EN 374:
Glove material specification [make/type, thickness, permeation time/life]: NBR; 0,4 mm; < 30 min
Glove material specification [make/type, thickness, permeation time/life]: FKM; 0,7 mm; < 60 min

Body protection:

Safety shoes with steel toecap.
Body covering work clothing or chemical resistant suit at increased risk.

Respiratory protection

Keep self contained breathing apparatus readily available for emergency use.
Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.
Respiratory protection necessary at:
high concentrations
Short term: filter apparatus, combination filter ABEK-CO-P2.

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* **Environmental exposure controls**

- * **Remark**
 Prevent release to the environment.

* **SECTION 9: Physical and chemical properties*** **9.1 Information on basic physical and chemical properties****Physical state**

liquid

Colourcolourless
clear**Odour**

stinging

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:			not determined
Melting point/freezing point	Melting point -10- -8 °C		
Boiling point or initial boiling point and boiling range	63- 64 °C pressure 1013 hPa		
flammability			In contact with water releases flammable gases.
Lower and upper explosion limit			not determined
Flash point	> 100 °C		
Auto-ignition temperature			not determined
Decomposition temperature			not determined
pH			not determined
Viscosity	kinematic		not determined
Solubility(ies)	Water solubility		not applicable hydrolysed (half-life < 12 hours)
Partition coefficient n-octanol/water (log value)			not determined
Vapour pressure	200 hPa (20°C)		
Density and/or relative density	1.455 g/cm ³ (20°C)		
Relative vapour density	4.4		Air = 1.
particle characteristics			not applicable

* **9.2 Other information*** **Information with regard to physical hazard classes*** **Substances or mixtures which, in contact with water, emit flammable gases****Safety characteristics**

	Value	Method, Result	Source, Remark
chemical identity of the evolved gas		Carbon monoxide Carbon dioxide Hydrochloric gas	Extremely flammable gas.

- * **Other information**
 Vapours are heavier than air.

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*** SECTION 10: Stability and reactivity***** 10.1 Reactivity**

Reacts violently with water.

*** 10.2 Chemical stability**

The mixture is chemically stable under recommended conditions of storage, use and temperature.

*** 10.3 Possibility of hazardous reactions**

In contact with water releases toxic gases.
 In contact with water releases flammable gases.
 May react violently with oxidants.
 Reactions with alkali metals.

10.4 Conditions to avoid

Humidity.
 Heat sources / heat - risk of bursting.
 Ignition sources, open flames, glowing metal surfaces, etc.

10.5 Incompatible materials

Water / moisture.
 Alkali metals
 aluminium oxide smoke
 Alkali (lye)
 Alcohols

*** 10.6 Hazardous decomposition products**

After contact with water:
 Carbon monoxide
 Carbon dioxide
 Hydrochloric gas

*** SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008***** Acute toxicity***** Animal data**

	Effective dose	Method, Evaluation	Source, Remark
Acute oral toxicity			not determined
Acute dermal toxicity			not determined
Acute inhalation toxicity	CAS No.79-37-8 Oxalyl dichloride	Acute inhalation toxicity (gas)	
	LC50: 1840 ppm Species	Rat	
	Exposure time 1 h		

*** Assessment/classification**

Toxic if inhaled.
 Toxic if swallowed.

*** Skin corrosion/irritation***** Assessment/classification**

Causes severe burns.

*** Serious eye damage/irritation***** Assessment/classification**

Causes serious eye damage.

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* **Sensitisation to the respiratory tract**

* **Assessment/classification**
 No data available

* **Skin sensitisation**

* **Assessment/classification**
 No data available

* **Germ cell mutagenicity**

* **Assessment/classification**
 No data available

* **Carcinogenicity**

* **Assessment/classification**
 No data available

* **Reproductive toxicity**

* **Assessment/classification**
 No data available

* **STOT-single exposure**

* **STOT SE 1 and 2**
 * **Assessment/classification**
 Based on available data, the classification criteria are not met.

* **STOT-repeated exposure**

* **Assessment/classification**
 No data available

* **Aspiration hazard**

* **Remark**
 No data available

11.2 Information on other hazards

Other information

Irritating to respiratory system.
 Pulmonary damage is possible.
 Irritates mucous membranes.

* **SECTION 12: Ecological information**

12.1 Toxicity

Aquatic toxicity

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity	not determined		
Chronic (long-term) fish toxicity	not determined		
Acute (short-term) toxicity to crustacea	not determined		
Chronic (long-term) toxicity to aquatic invertebrate	not determined		
Acute (short-term) toxicity to algae and cyanobacteria	not determined		
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	not determined		

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* **12.2 Persistence and degradability**

* **Assessment/classification**
 No data available

* **12.3 Bioaccumulative potential**

* **Assessment/classification**
 No data available

* **12.4 Mobility in soil**

* **Assessment/classification**
 No data available

* **12.5 Results of PBT and vPvB assessment**

The substance/mixture does not contain components meeting the PBT/vPvB criteria of the Reach Regulation, Annex XIII, at levels of 0.1% or higher.

* **12.6 Endocrine disrupting properties**

	Effective dose	Method, Evaluation	Source, Remark
Endocrine disrupting properties			See section 2.3

12.7 Other adverse effects

No data available

* **SECTION 13: Disposal considerations*** **13.1 Waste treatment methods****Waste codes/waste designations according to EWC/AVV**

Waste code product	Waste name
070107 *	halogenated still bottoms and reaction residues

* **Appropriate disposal / Product**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste. Prevent release to the environment. No disposal via the sewage.

* **Appropriate disposal / Package**

Transportable pressure equipment (empty, residual pressure): Return to supplier / manufacturer.

* **SECTION 14: Transport information**

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	UN 3129	UN 3129	UN 3129
14.2 UN proper shipping name	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S.	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S.	Water-reactive liquid, corrosive, n.o.s.
14.3 Transport hazard class(es)	4.3 (8)	4.3 (8)	4.3 (8)
14.4 Packing group	I	I	I
14.5 Environmental hazards	No	No	No

14.6 Special precautions for user

The protective measures listed in Sections 6, 7 and 8 of the Safety Data Sheet have to be considered.

14.7 Maritime transport in bulk according to IMO instruments

No carriage in bulk.

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Land transport (ADR/RID)

UN number or ID number	UN 3129
UN proper shipping name	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S.
Transport hazard class(es)	4.3 (8)
Hazard label(s)	4.3+8
Classification code	WC1
Packing group	I
Environmental hazards	No
Limited quantity (LQ)	0
Special provisions	274
Tunnel restriction code	B/E

*** Sea transport (IMDG)**

UN number or ID number	UN 3129
UN proper shipping name	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S.
Transport hazard class(es)	4.3 (8)
Packing group	I
Environmental hazards	No
Limited quantity (LQ)	0
Marine pollutant	No
EmS	F-G, S-N

*** Air transport (ICAO-TI / IATA-DGR)**

UN number or ID number	UN 3129
UN proper shipping name	Water-reactive liquid, corrosive, n.o.s.
Transport hazard class(es)	4.3 (8)
Packing group	I
Environmental hazards	No

*** SECTION 15: Regulatory information***** 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture***** EU legislation***** Restrictions of occupation**

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
 Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

*** Other regulations (EU)***** To follow:**

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex XVII No 3.
 Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex XVII No 40.
 Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances.
 National and local regulations concerning chemicals shall be observed.

*** Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive] VOC**

VOC-value ≥ 99.5 g/L

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* **15.2 Chemical Safety Assessment**

* **National regulations**

For this substance a chemical safety assessment is not required.

* **SECTION 16: Other information**

Key literature references and sources for data

Information from our suppliers and data from the "GESTIS Substances Database" and the "Registered Substances" database of the European Chemicals Agency (ECHA) were used to create this safety data sheet.

* **Additional information**

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

Relevant H- and EUH-phrases (Number and full text)

H260 In contact with water releases flammable gases which may ignite spontaneously.
H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage.
H331 Toxic if inhaled.

Indication of changes

* Data changed compared with the previous version