

**Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)**

Printed 22.10.2018
Revision 22.10.2018 (GB) Version 17.0

Oxalyl dichloride
2530



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

1.1. Product identifier

Name of product	Oxalyl dichloride Art-Nr(n).: 2530
Name of substance	Oxalyl dichloride
EC No	201-200-2
REACH registration number	01-2119955690-32
CAS No	79-37-8

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

Identified uses

Remark

Restricted to professional users.

Recommended intended purpose(s)

Basic substance.
Intermediate.

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor	GHC Gerling, Holz & Co. Handels GmbH Ruhrstraße 113, D-22761 Hamburg Phone +49 40 853 123-0, Fax +49 40 853 123-66 E-Mail hamburg@ghc.de Internet www.ghc.com
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Advice

GHC Gerling, Holz & Co. Handels GmbH
Phone +49 40 853 123-0
Fax +49 40 853 123-66
E-mail (competent person):
msds@ghc.de

1.4. Emergency telephone number

Emergency advice	Giftinformationszentrum (Poison Control Centre) Mainz Phone +49 6131 19240
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Water-react. 1	H260	On basis of test data.
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 + H331 Toxic if swallowed or if inhaled.

**Safety Data Sheet according to Regulation (EC)
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Oxalyl dichloride
2530

H314 Causes severe skin burns and eye damage.

2.2. Label elements

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



GHS02



GHS05



GHS06

Signal word
Danger

Hazard statements for physical hazards

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

Hazard statements for health hazards

H301 + H331 Toxic if swallowed or if inhaled.

H314 Causes severe skin burns and eye damage.

Precautionary Statements

Prevention

P223 Do not allow contact with water.

P260 Do not breathe mist/vapours.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P308 IF exposed or concerned:

P315 Get immediate medical advice/attention.

! Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Hazardous ingredients for labeling

Oxalyl dichloride

Supplemental Hazard information (EU)

Physical properties

Reacts violently with water.

Health properties

Contact with water liberates toxic gas.

Corrosive to the respiratory tract.

Additional information

Remark

The product should only be used as an intermediate for the synthesis of other substances.

2.3. Other hazards

Adverse human health effects and symptoms

Contact with liquid may cause cold burns/frostbite.

Information pertaining to special dangers for human and environment

Dangerous substances are released in case of decomposition.

Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

**Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)**

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Revision 22.10.2018 (GB) Version 17.0

Oxalyl dichloride
2530

Results of PBT and vPvB assessment
not determined

SECTION 3: Composition/ information on ingredients

3.1. Substances

Description

Content: > 99 %

CAS No 79-37-8

Oxalyl dichloride

EC No 201-200-2

REACH registration number 01-2119955690-32

Additional advice

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

3.2. Mixtures

not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.
Adhere to personal protective measures when giving first aid.
Seek medical advice immediately.

In case of inhalation

Remove the casualty into fresh air and keep him immobile.
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).
Seek medical treatment immediately.
In case of respiratory standstill give artificial respiration by respiratory bag (Ambu bag) or respirator. Send for a doctor.

In case of skin contact

In case of contact with skin wash off immediately with plenty of water.
Seek medical treatment immediately.

In case of eye contact

Eye rinsing with water carefully while protecting unhurt eye.
Call for a doctor immediately.
Remove contact lenses, if present and easy to do. Continue rinsing.

In case of ingestion

Do not induce vomiting.
Call for a doctor immediately.
Rinse out mouth and give plenty of water to drink.

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

Physician's information / possible symptoms

Redness / blebs on the skin.
Eye defects
Strong eye irritation.
Respiratory tract irritation
Cardiac arrhythmia (disordered cardiac rhythm).
Contact with liquid may cause cold burns/frostbite.

Physician's information / possible dangers

Risk of pulmonary oedema

Safety Data Sheet according to Regulation (EC)

No. 1907/2006 (REACH)

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Revision 22.10.2018 (GB) Version 17.0

Oxalyl dichloride

2530

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

Treatment (Advice to doctor)

Treat symptoms.

Pulmonary oedema prophylaxis.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Dry powder

Carbon dioxide

sand

Unsuitable extinguishing media

water

foam

5.2. Special hazards arising from the substance or mixture

In the event of fire the following can be released:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

Hydrogen chloride (HCl)

Phosgene

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Use breathing apparatus with independent air supply (isolated).

Wear full protective clothing.

Additional information

Cool endangered containers with water spray jet.

Exposure to fire may cause containers to rupture / explode.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

Collect contaminated firefighting water separately, must not be discharged into the drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Evacuate area.

Keep people away and stay on the upwind side.

For emergency responders

Remove persons to safety.

Personal protection by wearing close-fitting protective clothing and breathing apparatus.

6.2. Environmental precautions

Do not discharge into the drains or bodies of water..

Do not seep away runed out product into ground or body of water.

Collect contaminated water / firefighting water separately.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up

Ensure adequate air ventilation.

Clean contaminated objects and floor thoroughly under consideration of environment regulations.

Keep at a distance of water, take up dry, wear breathing apparatus and personal protective clothing.

Take up with absorbent material (e.g. kieselguhr).

**Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)**

Printed 22.10.2018
Revision 22.10.2018 (GB) Version 17.0

Oxalyl dichloride
2530

After taking up the material dispose according to regulation.

6.4. Reference to other sections

Safe handling: see section 7
Disposal: see section 13
Personal protection equipment: see section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.
If the product is discharged from bung-hole drums: Cool down the product to -5 °C before the bung-hole is opened.
Transfer and handle only in enclosed systems.
Do not heat with open flames.
Open container only under local exhaust ventilation.
Provide good room ventilation even at ground level (vapours are heavier than air).
Avoid release to the environment.
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.

General protective measures

Do not inhale vapours.

Hygiene measures

At work do not eat, drink and smoke.
Wash hands before breaks and after work.
Use barrier skin cream.

Advice on protection against fire and explosion

Keep away from sources of ignition
Take precautionary measures against static discharges (earthing (grounding) at pouring)
Pay attention to general rules of internal fire prevention.
Avoid effect of heat.
Use explosion-proof equipment / fittings and non-sparking tools.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in closed original container.
Ventilate store-rooms thoroughly.
Only use containers that are approved specifically for the substance/product.
Other material details see ISO 11114.
All regulations and local requirements for the storage of containers have to be respected.

Advice on storage compatibility

Do not store together with combustible materials.
Do not store together with spontaneously flammable materials.
Do not store with gases.
Do not store together with animal feedstuffs.
Do not store together with explosives.
Do not store together with infectious substances.
Do not store together with radioactive material.
Do not store together with food.
Do not store together with oxidizing agents.

Safety Data Sheet according to Regulation (EC)

No. 1907/2006 (REACH)

Printed 22.10.2018

Revision 22.10.2018 (GB) Version 17.0

Oxalyl dichloride

2530



Further information on storage conditions

Store closed container at cool and aired place.

Keep container dry.

Protect from heat/overheating.

Recommended storage temperature: ≤ 25 °C.

7.3. Specific end use(s)

Recommendation(s) for intended use

Use as an intermediate under strictly controlled conditions.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No information available.

8.2. Exposure controls

Respiratory protection

Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

Breathing apparatus in the event of high concentrations.

Keep self contained breathing apparatus readily available for emergency use.

Short term: filter apparatus, combination filter ABEK-CO-P2.

Hand protection

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

Eye protection

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

Other protection measures

Safety shoes with steel toe.

Body covering work clothing, or chemical resistant suit at increased risk.

Limitation and surveillance of the environment

Exhaust air scrubber

Hydrolysis

Appropriate engineering controls

Transfer and handle only in enclosed systems.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

liquid

Colour

colourless, clear

Odour

pungent

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	not determined				
Acid number	not determined				

**Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)**

Printed 22.10.2018
Revision 22.10.2018 (GB) Version 17.0

Oxalyl dichloride
2530

	Value	Temperature	at	Method	Remark
boiling point	63 - 64 °C		1013 hPa		
melting point	-12 °C				
Flash point	> 100 °C				
Vapourisation rate	not determined				
Flammable (solid)	not applicable				
Flammability (gas)	not applicable				
Ignition temperature	not determined				
Self ignition temperature	not determined				
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	232 hPa	20 °C			
Relative density	1,48 g/cm ³	20 °C			
Vapour density	4,4				Air = 1.
Solubility in water	not applicable				hydrolyses
Solubility/other	not determined				
Partition coefficient n- octanol/water (log P O/W)	not applicable				
Decomposition temperature	> 560 °C				
Viscosity dynamic	not determined				
Oxidising properties no					
Explosive properties no					

**Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)**

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Revision 22.10.2018 (GB) Version 17.0

Oxalyl dichloride
2530

9.2. Other information

Vapours are heavier than air.

SECTION 10: Stability and reactivity

10.1. Reactivity

See section "Possibility of hazardous reactions".

10.2. Chemical stability

Stable under recommended conditions of use and storage (see section 7).

10.3. Possibility of hazardous reactions

May react violently with oxidants.
Reacts violently with water.
Contact with water liberates toxic gas.
In contact with water releases flammable gases.
Reactions with alkali metals.
Hydrolyses to hydrogen chloride and carbon monoxide.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Substances to avoid

Alkali metals
aluminium oxide smoke
Water / moisture.
Alkalis.
Alcohols.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.
Hydrogen chloride (HCl)
Phosgene

Thermal decomposition

Remark ≥ 560 °C

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	> 200 mg/kg	rat		
LD50 acute dermal	not determined			
LC50 acute inhalation	1840 ppm (1 h)	rat (male / female)		

**Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)**

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Revision 22.10.2018 (GB) Version 17.0

Oxalyl dichloride
2530



	Value/Validation	Species	Method	Remark
Skin irritation	corrosive			
Eye irritation	risk of strong eye injuries			
Skin sensitization	not applicable			
Sensitization respiratory system	May cause allergy or asthma symptoms or breathing difficulties if inhaled.			

Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
Mutagenicity				not determined
Reproduction-Toxicity				not determined
Carcinogenicity				not determined

Specific target organ toxicity (single exposure)

Substance or mixture is not classified in GHS-criteria as specific target organ toxic with single exposure.

Specific target organ toxicity (repeated exposure)

Substance or mixture is not classified in GHS-criteria as specific target organ toxic with repeated exposure.

Experiences made from practice

Irritates respiratory tract.
Pulmonary damage is possible.
Irritates mucous membranes.

SECTION 12: Ecological information

12.1. Toxicity

No information available.

12.2. Persistence and degradability

	Elimination rate	Method of analysis	Method	Validation
Biological degradability				not degradable
	The product is unstable in water. The information on elimination relates to the hydrolysis products.			

12.3. Bioaccumulative potential

not applicable

12.4. Mobility in soil

not applicable

12.5. Results of PBT and vPvB assessment

not determined

12.6. Other adverse effects

No effects from this product are known.

**Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)**

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Revision 22.10.2018 (GB) Version 17.0

Oxalyl dichloride
2530



General regulation

The product hydrolyses.
Avoid release to the environment.
Do not allow uncontrolled leakage of product into the environment.
Product is not allowed to be discharged into the ground water or aquatic environment.
Product is not allowed to be discharged into aquatic environment, drains or sewage treatment plants.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste code No.	Name of waste
07 01 07*	halogenated still bottoms and reaction residues

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 2008/98/EC on hazardous waste.

Recommendations for the product

Dispose of as hazardous waste.

Recommendations for packaging

Totally emptied packaging: Return to supplier / manufacturer.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	3129	3129	3129
14.2. UN proper shipping name	WATER-REACTIVE LIQUID, CORROSIVE, N. O.S. (Oxalylchlorid)	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S. (Oxalyl chloride)	Water-reactive liquid, corrosive, n.o.s. (Oxalyl chloride)
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. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No transport as bulk according IBC - Code.

Land and inland navigation transport ADR/RID

Hazard label(s) 4.3+8
tunnel restriction code B/E
Classification code WC1

Marine transport IMDG

EmS: F-G, S-N

Air transport ICAO/IATA-DGR

Cargo aircraft only: max. 1 l.

**Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)**

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Revision 22.10.2018 (GB) Version 17.0

Oxalyl dichloride
2530



SECTION 15: Regulatory information

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

Other regulations (EU)

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.

VOC standard

VOC content >=99 % 20 °C 232 hPa

15.2. Chemical Safety Assessment

For this substance a chemical safety assessment is not required.

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

An exposure scenario is not required.

SECTION 16: Other information

Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Further information

All declarations of safety-data-sheet refer to pure substance.

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.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 16.0

Sources of key data used

For the preparation of this safety data sheet, information from our suppliers as well as data from the "database of registered substances" of the European Chemicals Agency (ECHA) were used.