# SIGMA-ALDRICH

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SAFETY DATA SHEET

Version 5.2 Revision Date 06/27/2014 Print Date 11/21/2018

1. PF	1. PRODUCT AND COMPANY IDENTIFICATION			
1.1	Product identifiers Product name	:	2-Chlorodibenzofuran	
	Product Number Brand	:	S810061 Aldrich	
	CAS-No.	:	51230-49-0	
1.2 Relevant identified uses of the substance or mixture and uses		ne substance or mixture and uses advised against		
	Identified uses	:	Laboratory chemicals, Manufacture of substances	
1.3 Details of the supplier of the safety data sheet		safety data sheet		
	Company	:	Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA	
	Telephone Fax	:	+1 800-325-5832 +1 800-325-5052	
1.4	Emergency telephone number			
	Emergency Phone #	:	+1-703-527-3887 (CHEMTREC)	

# 2. HAZARDS IDENTIFICATION

# 2.1 Classification of the substance or mixture

## GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302 Eye irritation (Category 2A), H319 Chronic aquatic toxicity (Category 4), H413

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 2.2 GHS Label elements, including precautionary statements

Pictogram

Signal word

$\mathbf{\Lambda}$	
$\langle \cdot \rangle$	
$\sim$	
$\sim$	

Warning

Harmful if swallowed. Causes serious eye irritation. May cause long lasting harmful effects to aquatic life.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.
Wear protective gloves/ eye protection/ face protection.
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P330	Rinse mouth.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P501	Dispose of contents/ container to an approved waste disposal plant.

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

## **3. COMPOSITION/INFORMATION ON INGREDIENTS**

## 3.1 Substances

Formula	: C12H7CIO
Molecular Weight	: 202.64 g/mol
CAS-No.	: 51230-49-0

## Hazardous components

Classification	Concentration
Acute Tox. 4; Eye Irrit. 2A;	-
Aquatic Chronic 4; H302, H319, H413	
	Acute Tox. 4; Eye Irrit. 2A; Aquatic Chronic 4; H302,

For the full text of the H-Statements mentioned in this Section, see Section 16

## 4. FIRST AID MEASURES

## 4.1 Description of first aid measures

# General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

## If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

## In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

## In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

## If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed** no data available

# **5. FIREFIGHTING MEASURES**

## 5.1 Extinguishing media

## **Suitable extinguishing media** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

- 5.2 Special hazards arising from the substance or mixture Carbon oxides, Hydrogen chloride gas
- **5.3** Advice for firefighters Wear self contained breathing apparatus for fire fighting if necessary.

# 5.4 Further information no data available

# 6. ACCIDENTAL RELEASE MEASURES

## 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

For personal protection see section 8.

## 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## 6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

# 6.4 Reference to other sections

For disposal see section 13.

## 7. HANDLING AND STORAGE

## 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.Normal measures for preventive fire protection. For precautions see section 2.2.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

## 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1 Control parameters

## Components with workplace control parameters

Contains no substances with occupational exposure limit values.

## 8.2 Exposure controls

## Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## Personal protective equipment

## Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

## Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

## **Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## **Respiratory protection**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator.For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

# 9.1 Information on basic physical and chemical properties

- a) Appearance Form: solid
- b) Odour no data available

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c)	Odour Threshold	no data available
d)	рН	no data available
e)	Melting point/freezing point	no data available
f)	Initial boiling point and boiling range	no data available
g)	Flash point	no data available
h)	Evapouration rate	no data available
i)	Flammability (solid, gas)	no data available
j)	Upper/lower flammability or explosive limits	no data available
k)	Vapour pressure	no data available
I)	Vapour density	no data available
m)	Relative density	no data available
n)	Water solubility	no data available
o)	Partition coefficient: n- octanol/water	log Pow: 4.571
p)	Auto-ignition temperature	no data available
q)	Decomposition temperature	no data available
r)	Viscosity	no data available
s)	Explosive properties	no data available
t)	Oxidizing properties	no data available
Oth	ner safety information	

no data available

# **10. STABILITY AND REACTIVITY**

## 10.1 Reactivity no data available

9.2

- **10.2 Chemical stability** Stable under recommended storage conditions.
- **10.3** Possibility of hazardous reactions no data available
- **10.4 Conditions to avoid** no data available
- **10.5** Incompatible materials Strong oxidizing agents
- **10.6 Hazardous decomposition products** Other decomposition products - no data available In the event of fire: see section 5

# 11. TOXICOLOGICAL INFORMATION

# 11.1 Information on toxicological effects

Acute toxicity no data available

## Inhalation: no data available

## Dermal: no data available

no data available

# Skin corrosion/irritation no data available

Serious eye damage/eye irritation no data available

Respiratory or skin sensitisation no data available

#### Germ cell mutagenicity no data available

## Carcinogenicity

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

## **Reproductive toxicity**

#### no data available

Reproductive toxicity - mouse - Oral Effects on Newborn: Physical.

## no data available

Developmental Toxicity - mouse - Oral Specific Developmental Abnormalities: Musculoskeletal system.

# Specific target organ toxicity - single exposure no data available

Specific target organ toxicity - repeated exposure no data available

# Aspiration hazard no data available

Additional Information

# RTECS: HP5195000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## **12. ECOLOGICAL INFORMATION**

# 12.1 Toxicity

no data available

# 12.2 Persistence and degradability no data available

# **12.3 Bioaccumulative potential** no data available

**12.4 Mobility in soil** no data available

## 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

## 12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

no data available

# **13. DISPOSAL CONSIDERATIONS**

## 13.1 Waste treatment methods

## Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

#### Contaminated packaging

Dispose of as unused product.

# **14. TRANSPORT INFORMATION**

## DOT (US)

Not dangerous goods

IMDG Not dangerous goods

Not dangerous

## ΙΑΤΑ

Not dangerous goods

## 15. REGULATORY INFORMATION

## SARA 302 Components

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

## SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

## SARA 311/312 Hazards

Acute Health Hazard

## **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

## Pennsylvania Right To Know Components

2-Chlorodibenzofuran	CAS-No. 51230-49-0	Revision Date
New Jersey Right To Know Components		
2-Chlorodibenzofuran	CAS-No. 51230-49-0	Revision Date

## California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## **16. OTHER INFORMATION**

## Full text of H-Statements referred to under sections 2 and 3.

Acute Tox.	Acute toxicity
Aquatic Chronic	Chronic aquatic toxicity
Eye Irrit.	Eye irritation

H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H413	May cause long lasting harmful effects to aquatic life.

0

# HMIS Rating

Health hazard:	2
Chronic Health Hazard:	
Flammability:	0
Physical Hazard	0
NFPA Rating	
Health hazard:	2
Fire Hazard:	0

Reactivity Hazard:

## **Further information**

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## **Preparation Information**

Sigma-Aldrich Corporation Product Safety – Americas Region 1-800-521-8956

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