

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

Version 10.1

Revision Date 02.01.2025

Print Date 03.01.2025

GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : Potassium dichromate

Product Number : 207802  
Brand : SIGALD  
Index-No. : 024-002-00-6  
REACH No. : 01-2119454792-32-XXXX  
CAS-No. : 7778-50-9

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

Identified uses : Scientific research and development

**1.3 Details of the supplier of the safety data sheet**

Company :

**1.4 Emergency telephone**

Emergency Phone # : +(44)-870-8200418 (CHEMTREC (GB))  
+(353)-19014670 (CHEMTREC Ireland)  
001-803-017-9114 (CHEMTREC India)

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

|   |   |
|---|---|
| Oxidizing solids, (Category 2)          | H272: May intensify fire; oxidizer.                                     |
| Acute toxicity, (Category 3)            | H301: Toxic if swallowed.   |
| Acute toxicity, (Category 2)            | H330: Fatal if inhaled.   |
| Acute toxicity, (Category 4)            | H312: Harmful in contact with skin.                                     |
| Skin corrosion, (Sub-category 1B)       | H314: Causes severe skin burns and eye damage.                          |
| Serious eye damage, (Category 1)        | H318: Causes serious eye damage.  |
| Respiratory sensitization, (Category 1) | H334: May cause allergy or asthma symptoms or breathing difficulties if |



|  |  |
|--|--|
|  | inhaled.   |
| Skin sensitization, (Category 1)   | H317: May cause an allergic skin reaction.                                       |
| Germ cell mutagenicity, (Category 1B)  | H340: May cause genetic defects.   |
| Carcinogenicity, (Category 1B)   | H350: May cause cancer.  |
| Reproductive toxicity, (Category 1B)   | H360FD: May damage fertility. May damage the unborn child.                       |
| Specific target organ toxicity - single exposure, (Category 3), Respiratory system       | H335: May cause respiratory irritation.  |
| Specific target organ toxicity - repeated exposure, (Category 1), Cardio-vascular system | H372: Causes damage to organs through prolonged or repeated exposure if inhaled. |
| Short-term (acute) aquatic hazard, (Category 1)  | H400: Very toxic to aquatic life.  |
| Long-term (chronic) aquatic hazard, (Category 1)   | H410: Very toxic to aquatic life with long lasting effects.                      |

## 2.2 Label elements

### Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal Word

Danger

Hazard Statements

|        |   |
|--------|---|
| H272   | May intensify fire; oxidizer.   |
| H301   | Toxic if swallowed.   |
| H312   | Harmful in contact with skin.   |
| H314   | Causes severe skin burns and eye damage.  |
| H317   | May cause an allergic skin reaction.  |
| H330   | Fatal if inhaled.   |
| H334   | May cause allergy or asthma symptoms or breathing difficulties if inhaled.                          |
| H335   | May cause respiratory irritation.   |
| H340   | May cause genetic defects.  |
| H350   | May cause cancer.   |
| H360FD | May damage fertility. May damage the unborn child.  |
| H372   | Causes damage to organs (Cardio-vascular system) through prolonged or repeated exposure if inhaled. |
| H410   | Very toxic to aquatic life with long lasting effects.   |

Precautionary Statements

|      |  |
|------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P260 | Do not breathe dust.   |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection.                  |



|                    |  |
|--------------------|--|
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.                                     |
| P304 + P340 + P310 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.             |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

Supplemental Hazard Statements none

Restricted to professional users.

### Reduced Labeling (<= 125 ml)

Pictogram



Signal Word

Danger

Hazard Statements

|        |  |
|--------|--|
| H301   | Toxic if swallowed.  |
| H330   | Fatal if inhaled.  |
| H334   | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H317   | May cause an allergic skin reaction.                                       |
| H340   | May cause genetic defects.   |
| H350   | May cause cancer.  |
| H372   | Causes damage to organs through prolonged or repeated exposure if inhaled. |
| H314   | Causes severe skin burns and eye damage.                                   |
| H360FD | May damage fertility. May damage the unborn child.                         |

Precautionary Statements

|                    |  |
|--------------------|--|
| P260               | Do not breathe dust.   |
| P280               | Wear protective gloves/ protective clothing/ eye protection/ face protection.  |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.                                     |
| P304 + P340 + P310 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.             |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

Supplemental Hazard Statements none

## 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

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.

Toxicological information:



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.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms : Potassium bichromate

Formula :  $\text{Cr}_2\text{K}_2\text{O}_7$   
Molecular weight : 294.18 g/mol  
CAS-No. : 7778-50-9  
EC-No. : 231-906-6  
Index-No. : 024-002-00-6

| Component   | Classification   | Concentration |
|---|--|---------------|
| <b>potassium dichromate</b> Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH) |  |               |
| CAS-No. 7778-50-9<br>EC-No. 231-906-6<br>Index-No. 024-002-00-6   | Ox. Sol. 2; Acute Tox. 3;<br>Acute Tox. 2; Acute Tox. 4;<br>Skin Corr. 1B; Eye Dam. 1;<br>Resp. Sens. 1; Skin Sens. 1;<br>Muta. 1B; Carc. 1B; Repr. 1B;<br>STOT SE 3; STOT RE 1; Aquatic Acute 1;<br>Aquatic Chronic 1; H272, H301, H330, H312, H314, H318, H334, H317, H340, H350, H360FD, H335, H372, H400, H410<br>Concentration limits:<br>>= 5 %: STOT SE 3, H335;<br>M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 1 | <= 100 %      |

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

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.



**In case of eye contact**

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.  
Remove contact lenses.

**If swallowed**

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

**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

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**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

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

Potassium oxides

Chromium oxides

Not combustible.

Has a fire-promoting effect due to release of oxygen.

Ambient fire may liberate hazardous vapours.

**5.3 Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

**5.4 Further information**

Prevent fire extinguishing water from contaminating surface water or the ground water system.

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

**6.2 Environmental precautions**

Do not let product enter drains.



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

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

### **6.4 Reference to other sections**

For disposal see section 13.

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## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

#### **Advice on safe handling**

Work under hood. Do not inhale substance/mixture.

#### **Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition.

#### **Hygiene measures**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.  
For precautions see section 2.2.

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

#### **Storage conditions**

Tightly closed. Keep locked up or in an area accessible only to qualified or authorized persons. Do not store near combustible materials.

#### **Storage class**

Storage class (TRGS 510): 5.1B: Oxidizing hazardous materials

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

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

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

### **8.1 Control parameters**

#### **Ingredients with workplace control parameters**

### **8.2 Exposure controls**

#### **Personal protective equipment**

##### **Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

##### **Skin protection**

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Full contact

Material: Nitrile rubber



Minimum layer thickness: 0.11 mm  
Break through time: 480 min  
Material tested: KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

### **Body Protection**

protective clothing

### **Respiratory protection**

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P3

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

### **Control of environmental exposure**

Do not let product enter drains.

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## **SECTION 9: Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

- |   |                                       |
|---|---------------------------------------|
| a) Physical state                               | crystalline                           |
| b) Color  | orange                                |
| c) Odor   | odorless                              |
| d) Melting point/freezing point                 | Melting point/ range: 398 °C - lit.   |
| e) Initial boiling point and boiling range      | > 500 °C at 1,013 hPa - Decomposition |
| f) Flammability (solid, gas)                    | No data available                     |
| g) Upper/lower flammability or explosive limits | No data available                     |
| h) Flash point                                  | Not applicable                        |
| i) Autoignition temperature                     | does not ignite                       |
| j) Decomposition temperature                    | ca. 500 °C                            |



|  |  |
|--|--|
| k) pH  | 3.5 - 5.0 at 29.4 g/l at 25 °C   |
| l) Viscosity                                 | Viscosity, kinematic: No data available<br>Viscosity, dynamic: No data available |
| m) Water solubility                          | ca.29.4 g/l at 20 °C   |
| n) Partition coefficient:<br>n-octanol/water | Not applicable for inorganic substances  |
| o) Vapor pressure                            | Not applicable   |
| p) Density                                   | ca.2.680 g/cm <sup>3</sup> at 20 °C - OECD Test Guideline 109                    |
| Relative density                             | ca.2.7 at 20 °C - OECD Test Guideline 109  |
| q) Relative vapor<br>density                 |  |
| r) Particle<br>characteristics               | No data available  |
| s) Explosive properties                      | Not classified as explosive.   |
| t) Oxidizing properties                      | The substance or mixture is classified as oxidizing with the<br>category 2.      |

## 9.2 Other safety information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Risk of explosion with:

Iron

magnesium

hydrazine and derivatives

hydroxylamine

ammonium nitrate

Boron

Acetic anhydride

oxidisable substances

Reducing agents

sulfuric acid

silicon

Exothermic reaction with:

anhydrides

phosphides

Sulfides

nitrides

Fluorine

Risk of ignition or formation of inflammable gases or vapours with:  
organic combustible substances





glycerol  
Powdered metals  
hydrides  
alkali compounds  
Acetone  
with  
sulfuric acid  
Generates dangerous gases or fumes in contact with:  
hydrochloric acid

#### **10.4 Conditions to avoid**

no information available

#### **10.5 Incompatible materials**

No data available

#### **10.6 Hazardous decomposition products**

In the event of fire: see section 5

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### **SECTION 11: Toxicological information**

#### **11.1 Information on toxicological effects**

##### **Acute toxicity**

LD50 Oral - Rat - female - 90.5 mg/kg

(OECD Test Guideline 401)

Acute toxicity estimate Oral - 90.5 mg/kg

(ATE value derived from LD50/LC50 value)

LC50 Inhalation - Rat - female - 4 h - 0.083 mg/l - dust/mist

(OECD Test Guideline 403)

Acute toxicity estimate Inhalation - 0.083 mg/l - dust/mist

(ATE value derived from LD50/LC50 value)

Acute toxicity estimate Dermal - 1,100 mg/kg

(Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

##### **Skin corrosion/irritation**

Skin - Rabbit

Result: Causes burns. - 4 h

(OECD Test Guideline 404)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

##### **Serious eye damage/eye irritation**

Remarks: Causes serious eye damage.

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

##### **Respiratory or skin sensitization**

Patch test: - Human

Result: positive

May cause an allergic skin reaction.

Remarks: (IUCLID)

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

##### **Germ cell mutagenicity**



May cause genetic defects.

**Carcinogenicity**

Presumed to have carcinogenic potential for humans

**Reproductive toxicity**

May damage the unborn child.

May damage fertility.

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

Inhalation - Causes damage to organs through prolonged or repeated exposure.

- Cardio-vascular system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

**Aspiration hazard**

No data available

**11.2 Additional Information**

**Endocrine disrupting properties**

**Product:**

Assessment

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.

RTECS: HX7680000

Ulceration, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

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

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**SECTION 12: Ecological information**

**12.1 Toxicity**

|   |  |
|---|--|
| Toxicity to fish                                    | LC50 - Danio rerio (zebra fish) - 58.5 mg/l - 96 h<br>Remarks: (ECHA)                              |
| Toxicity to daphnia and other aquatic invertebrates | EC50 - Daphnia magna (Water flea) - 0.035 mg/l - 48 h<br>Remarks: (ECHA)                           |
| Toxicity to algae                                   | static test ErC50 - Selenastrum capricornutum (green algae) - 0.233 mg/l - 72 h<br>Remarks: (ECHA) |
| Toxicity to bacteria                                | IC50 - activated sludge - 30 mg/l - 3 h<br>Remarks: (in analogy to similar products) (ECHA)        |
| Toxicity to   | NOEC - Pimephales promelas (fathead minnow) - 1.1 mg/l - 7 d                                       |



fish(Chronic toxicity) Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity) NOEC - Daphnia magna (Water flea) - 18 mg/l - 21 d  
Remarks: (ECHA)

## 12.2 Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

## 12.3 Bioaccumulative potential

Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 180 d  
- 200 µg/l(potassium dichromate)

Bioconcentration factor (BCF): 17.4

## 12.4 Mobility in soil

No data available

## 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 12.6 Endocrine disrupting properties

### Product:

Assessment : 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.

## 12.7 Other adverse effects

No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

No data available

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## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 3087

IMDG: 3087

IATA: 3087

### 14.2 UN proper shipping name

ADR/RID: (potassium dichromate)

IMDG: OXIDIZING SOLID, TOXIC, N.O.S. (potassium dichromate)

IATA: Oxidizing solid, toxic, n.o.s. (potassium dichromate)



#### 14.3 Transport hazard class(es)

ADR/RID: 5.1 (6.1)

IMDG: 5.1 (6.1)

IATA: 5.1 (6.1)

#### 14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

#### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

#### 14.6 Special precautions for user

Further information : No data available

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### SECTION 15: Regulatory information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

##### Authorisations and/or restrictions on use

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : potassium dichromate

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REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : potassium dichromate

This product contains a substance listed on Annex XIV of the REACH Regulation (EC) Nr. 1907/2006.

Listed substance / Sunset Date : potassium dichromate / 21.09.2017

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

##### National legislation

Seveso III: Directive 2012/18/EU of the H2 ACUTE TOXIC  
European Parliament and of the Council



on the control of major-accident hazards involving dangerous substances.

|    |                              |
|----|------------------------------|
| P8 | OXIDISING LIQUIDS AND SOLIDS |
| E1 | ENVIRONMENTAL HAZARDS        |
| H2 | ACUTE TOXIC                  |
| P8 | OXIDISING LIQUIDS AND SOLIDS |
| E1 | ENVIRONMENTAL HAZARDS        |

### Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

## 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

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## SECTION 16: Other information

### Full text of H-Statements

|        |  |
|--------|--|
| H272   | May intensify fire; oxidizer.  |
| H301   | Toxic if swallowed.  |
| H312   | Harmful in contact with skin.  |
| H314   | Causes severe skin burns and eye damage.                                   |
| H317   | May cause an allergic skin reaction.                                       |
| H318   | Causes serious eye damage.   |
| H330   | Fatal if inhaled.  |
| H334   | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335   | May cause respiratory irritation.  |
| H340   | May cause genetic defects.   |
| H350   | May cause cancer.  |
| H360FD | May damage fertility. May damage the unborn child.                         |
| H372   | Causes damage to organs through prolonged or repeated exposure if inhaled. |
| H400   | Very toxic to aquatic life.  |
| H410   | Very toxic to aquatic life with long lasting effects.                      |



## Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

## Further information

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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