# Chromium Oxide HGN

This product is not classified as dangerous. A safety data sheet is not required for this product under Article 31 of REACH. This SDS has been created on a voluntary basis.

## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

| | |
|---|---|
| Product name: | Chromium oxide HGN |
| REACH Substance Name: | chromium oxide |
| EINECS: | 215-160-9 |
| CAS-No.: | 1308-38-9 |
| REACH Registration number: | 01-2119433951-39-xxxx |
| **Other names:** | C.I. Pigment Green 17, chromium (III) oxide Cr2O3 |

### 1.2 Relevant identified uses of the substance or mixture advised against

Not known

**Suitable uses** : Colorants (pigments and dyestuffs), inorganic

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

PIGMENT INTERNATIONAL GmbH & Co. KG
Helmholtzstr. 10-12
40764 Langenfeld, Germany

**Phone / Telefax / E-Mail**

+49 2205-9047337 / +49 2205-9047338 / em@pigment-international.com

### 1.4 Emergency telephone

+49 2205-9047337 (office times), +49 30-30686700 (24h)

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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]**
Not classified.
**Classification according to Directive 67/548/EEC [DSD]**
Not classified.

### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008)**
No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

| | | |
|---|---|---|
| **Hazard pictograms** | : | Not applicable. |
| **Signal word** | : | No signal word. |
| **Hazard statements** | : | No known significant effects or critical hazards. |

**Precautionary statements**

| | |
|---|---|
| **Prevention** | Not applicable. |
| **Response** | Not applicable. |
| **Storage** | Not applicable. |
| **Disposal** | Not applicable. |

### 2.3 Other hazards

**Other hazards which do not result in classification**: Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

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 Product definition (REACH)** : Mono-constituent substance
chromium (III) oxide $Cr_2O_3$

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting in this section, in accordance with EU or national regulations.

## Section 4: First aid measures

### 4.1 Description of first aid measures

**Inhalation**

Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin contact**

No special measures required.

**Eye contact**

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

**Ingestion**

No special measures required.

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

See Section 11 for more detailed information on health effects and symptoms.

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

See Section 11 for more detailed information on health effects and symptoms.

## Section 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical or $CO_2$.

**Unsuitable extinguishing media** : None known.

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

No specific fire or explosion hazard.
No hazardous combustion products.

### 5.3 Advice for fire fighters

No special precautions for fire fighters. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6: Accidental release measures

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

No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Avoid breathing dust. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8). Hazard of slipping on spilt product.

### 6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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

**Small spill:** Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

**Large spill:** Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

### 6.4 Reference to other sections

See Section 1 for emergency contact information.See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

## Section 7: Handling and storage

### 7.1 Precautions for safe handling

| | |
|---|---|
| Advice on safe handling : | For personal protection see section 8.<br>Avoid contact with skin and eyes.<br>Provide sufficient air exchange and/or exhaust in work rooms.<br>In case of insufficient ventilation, wear suitable respiratory equipment.<br>Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.<br>Dispose of rinse water in accordance with local and national regulations. |
| Advice on protection against fire and explosion : | Provide appropriate exhaust ventilation at places where dust is formed. |
| Hygiene measures : | General industrial hygiene practice.<br>When using do not eat, drink or smoke. Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing before reusing. Remove contaminated clothing and protective equipment before entering eating areas. |
| Dust explosion class : | No data available |

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

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink.
Keep containers tightly closed in a dry, cool and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.
Storage class (TRGS 510) : 13, Non Combustible Solids

### 7.3 Specific end use(s)

Not available.

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## Section 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limit values** :

| | |
|---|---|
| Dust | Basis: DE DFG MAK<br><br>10 mg/m3<br>Peak-limit: excursion factor (category): 2; II<br>Value type (Form of exposure): AGW (Inhalable fraction)<br>Basis: DE TRGS 900<br>Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child<br><br>1,25 mg/m3<br>Peak-limit: excursion factor (category): 2; II<br>Value type (Form of exposure): AGW (Alveolate fraction) |

Basis: DE TRGS 900
Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Basis |
|---|---|---|---|---|
| chromium (III) oxide | 1308-38-9 | AGW (Inhalable fraction) | 2 mg/m3 (chromium) | DE TRGS 900 |
| | Peak-limit: excursion factor (category): 1; I | | | |
| | | TWA | 2 mg/m3 (chromium) | 2006/15/EC |
| | Further information: Indicative | | | |

### 8.2 Exposure controls

#### Occupational exposure controls

#### 8.2.1 Technical measures

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

#### 8.2.2 Personal protection measures

**Eye protection**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended: safety glasses with side-shields.

**Skin protection**

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**

Recommended: Dust-protection mask
Filter type : P1 filter

**Hand protection**

Recommended: gloves

**Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### 8.2.3 Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Water : The product should not be allowed to enter drains, water courses or the soil.

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## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| Appearance | powder |
| - Physical state: | |
| - Colour: | Solid (powder)<br>Greengreen |
| Odour: | Odourlessodorless |
| pH: | 5 to 8 (5% aqueous suspension) |
| Melting point: | 2435 °C |

| | |
|---|---|
| Vapour pressure: | 4000 °C (1.013hPa) |
| Density: | ca. 5,2kg/l at 20°C |
| Solubility : | Insoluble in cold water |
| Decomposition temperature : | Not available |

### 9.2 Other information
No additional information.

## Section 10: Stability and reactivity

### 10.1 Reactivity
No specific test data related to reactivity available for this product or its ingredients.

### 10.2 Chemical stability
The product is stable.

### 10.3 Possibility of hazardous reactions
Under normal conditions of storage and use, hazardous reactions will not occur.

### 10.4 Conditions to avoid
No specific data.

### 10.5 Incompatible materials
No specific data.

### 10.6 Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Acute toxicity**
Not classified due to lack of data.
**Components:**
**chromium (III) oxide:**

**Acute oral toxicity** :
LD50 (Rat, male and female): > 5.000 mg/kg
Method: OECD Test Guideline 401
GLP: Yes

**Acute inhalation toxicity** :
LC50 (Rat, male and female): > 5,41 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: Yes
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Dosage caused no mortality

**Skin corrosion/irritation**
Not classified due to lack of data.
**Components:**

**chromium (III) oxide:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Method | : | OECD Test Guidline 405 |
| Result | : | No eye irritation |
| GLP | : | Yes |

**Respiratory or skin sensitisation**

**Skin sensitisation**
Based on available data, the classification criteria are not met.

**Respiratory sensitisation**
Not classified due to lack of data.
**Components:**

**chromium (III) oxide:**

| | | |
|---|---|---|
| Test Type | : | Buehler Test |
| Exposure routes | : | Skin contact |
| Species | : | Guinea pig |
| Method | : | OECD Test Guideline 406 |
| Result | : | Did not cause sensitisation on laboratory animals. |
| GLP | : | Yes |

| | | |
|---|---|---|
| Test Type | : | Local lymph node assay (LLNA) |
| Exposure routes | : | Skin contact |
| Species | : | Mouse |
| Method | : | OECD Test Guideline 429 |
| Result | : | Did not cause sensitisation on laboratory animals. |

**Germ cell mutagenicity**
Not classified due to lack of data.

**Components:**

**chromium (III) oxide:**

| | |
|---|---|
| Genotoxicity in vitro | Test Type: Ames test<br>Test system: Salmonella typhimurium<br>Metabolic activation: with and without metabolic activation<br>Method: OECD Test Guideline 471<br>Result: negative<br>GLP: Yes<br>Remarks: Test results on an analogous substance/product.<br><br>Test Type: In vitro mammalian cell gene mutation test<br>Test system: mouse lymphoma cells<br>Metabolic activation: with and without metabolic activation<br>Method: OECD Test Guideline 476 |

| | |
|---|---|
| | Result: negative<br>Remarks: Based on data from similar materials |
| Genotoxicity in vivo | Test Type: Micronucleus test<br>Species: Mouse (male and female)<br>Cell type: Bone marrow<br>Application Route: Intraperitoneal<br>Method: OECD Test Guideline 474<br>Result: negative<br>GLP: Yes |

**Carcinogenicity**
Not classified due to lack of data.

**Components:**

**chromium (III) oxide:**

| | |
|---|---|
| Species | Rat, male and female |
| Application Route | Oral |
| Exposure time | 2 Years |
| Dose | 2000 - 10000 - 50000 parts per million |
| Method | OECD Test Guideline 451 |
| Result | Negative |
| GLP | Yes |
| Remarks | Test results on an analogous substance/product. |

**Reproductive toxicity**
Not classified due to lack of data.
**STOT - single exposure**
Not classified due to lack of data.
**STOT - repeated exposure**
Not classified due to lack of data.

**Repeated dose toxicity**

**Components:**

**chromium (III) oxide:**

| | |
|---|---|
| Species | Rat, male and female |
| NOAEL | >= 50000 ppm |
| Application Route | Oral |
| Exposure time | 2 yr |
| Number of exposures | Daily |
| Dose | 2000 - 10000 - 50000 ppm |
| GLP | Yes |
| Remarks | Chronic toxicity<br>Test results on an analogous substance/product. |

| | |
|---|---|
| Species | Rat, male and female |
| NOAEC | 15 mg/m3 |
| LOAEL | 44 mg/m³ |
| Application Route | Inhalation (dust/mist/fume) |
| Exposure time | 90 d |
| Number of exposures | 5 days/week |

| | |
|---|---|
| Dose | 4,4 - 15 - 44 mg/m3 |
| Method | OECD Test Guideline 413 |
| Remarks | Subchronic toxicity |

**Aspiration toxicity**
Not classified due to lack of data.

**11.2 Information on other hazards**

**Endocrine disrupting properties**
Not classified due to lack of data.

**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. |

## Section 12: Ecological information

## 12.1 Toxicity

**Components:**

**chromium (III) oxide:**

| | |
|---|---|
| Toxicity to fish | LC50 (Danio rerio (zebra fish)): > 10.000 mg/l<br>Exposure time: 96 h<br>Test Type: static test<br>Analytical monitoring: Yes<br>Method: ISO 7346/1<br>GLP: Yes<br>Remarks: nominal concentration<br>Fresh water |
| Toxicity to daphnia and other aquatic invertebrates | EC50 (Daphnia magna (Water flea)): 14,1 mg/l<br>Exposure time: 48 h<br>Test Type: static test<br>Analytical monitoring: Yes<br>Method: OECD Test Guideline 202<br>Remarks: No toxicity at the limit of solubility<br>Fresh water<br>Test results on an analogous substance/product. |
| Toxicity to algae/aquatic Plants | ErC50 (Desmodesmus subspicatus (green algae)): > 0,849<br>mg/l<br>End point: Growth rate<br>Exposure time: 72 h<br>Analytical monitoring: Yes<br>Method: OECD Test Guideline 201<br>GLP: Yes<br>Remarks: No toxicity at the limit of solubility<br>Fresh water<br>Test results on an analogous substance/product.<br><br>EC10 (Desmodesmus subspicatus (green algae)): 0,0117 mg/l<br>End point: Growth rate<br>Exposure time: 72 h<br>Analytical monitoring: Yes<br>Method: OECD Test Guideline 201<br>GLP: Yes<br>Remarks: No toxicity at the limit of solubility<br>Fresh water<br>Test results on an analogous substance/product. |
| Toxicity to microorganisms | EC50 (activated sludge): > 10.000 mg/l<br>Exposure time: 3 h<br>Analytical monitoring: No<br>Method: ISO 8192<br>GLP: Yes<br>Remarks: nominal concentration<br>Fresh water |
| Toxicity to fish (Chronic toxicity) | NOEC: >= 1.000 mg/l<br>Exposure time: 30 d<br>Species: Danio rerio (zebra fish)<br>Analytical monitoring: Yes<br>Method: OECD Test Guideline 210 |

GLP: Yes
Remarks: nominal concentration
Fresh water
Test results on an analogous substance/product.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

NOEC: >= 0,02 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Analytical monitoring: Yes
Method: OECD Test Guideline 211
GLP: Yes
Remarks: nominal concentration
No toxicity at the limit of solubility
Fresh water
Test results on an analogous substance/product.

**12.2 Persistence and degradability**

**Components:**

**chromium (III) oxide:**

Biodegradability

Remarks: The methods for determining biodegradability are not applicable to inorganic substances**.**

**12.3 Bioaccumulative potential**

**Components:**

**chromium (III) oxide:**

Partition coefficient: n-octanol/water

Remarks: Not applicable

**12.4 Mobility in soil**

Soil/water partition coefficient (KOC ) : Not available.

Mobility **:** Not available.

**12.5 Results of PBT and vPvB assessment**

**product:**

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

**product:**

| | |
|---|---|
| Additional ecological information | The methods for determining the biological degradability are not applicable to inorganic substances. |

## Section 13: Disposal considerations

### 13.1 Waste treatment methods

product

The generation of waste should be avoided or minimised wherever possible. Where possible recycling is preferred to disposal or incineration. Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations.

When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. Wastedisposal should be in accordance with existing federal state, provincial and or local environmental controls Do not contaminate ponds, waterways or ditches with chemical or used container. The product should not be allowed to enter drains, water courses or the soil.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

## Section 14: Transport information

| | ADR/RID | ADN/ADNR | IMDG | IATA |
|---|---|---|---|---|
| **14.1 UN number** | ------- | ------- | -------- | ------ |
| **14.2 UN proper shipping name** | ------- | ------- | -------- | ------ |
| **14.3 Transport hazard class(es)/ Marks** | ------- | ------- | -------- | ------ |
| **14.4 Packing group** | ------- | ------- | -------- | ------ |
| **14.5 Environmental hazards** | No. | No. | No. | No. |
| **14.6 Special precautions for user/Additional information** | Not dangerous cargo. Keep dry. Keep separated from foodstuffs. | Not dangerous cargo. Keep dry. Keep separated from foodstuffs. | Not dangerous cargo. Keep dry. Keep separated from foodstuffs. | Not dangerous cargo. Keep dry. Keep separated from foodstuffs. |

### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

## Section 15: Regulatory information

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

| | |
|---|---|
| REACH - Restrictions on the manufacture, placing on | Conditions of restriction for the following entries should be considered: Number on list 19: arsenic |

| | |
|---|---|
| the market and use of certain dangerous substances, mixtures and articles (Annex XVII) | Number on list 72: Chromium (VI) compounds, arsenic, lead massive [particle diameter ≥ 1 mm]<br><br>Number on list 75: Do not use for tattooing purposes |
| International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors | Not applicable |
| REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). | This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57). |
| Regulation (EU) No 2024/590 on substances that delete the ozone layer. | Not applicable |
| Regulation (EU) 2019/1021 on persistent organic pollutants (recast) | Not applicable |
| Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors. | Neither banned nor restricted |
| Council Regulation (EC) No 273/2004 on drug precursors | Not applicable |
| Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals | Not applicable |
| REACH - List of substances subject to authorisation (Annex XIV) | Not applicable |
| Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. | Not applicable |
| Water hazard class (Germany) | nwg not water endangering<br>Code Number: 806<br>Classification according to AwSV, Annex 1 (4) |

**Other regulations:**
Take note of Law on the protection of mothers at work, in education and in studies (Maternity Protection Act - MuSchG).

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

**15.2 Chemical Safety Assessment:** Not applicable.

## Section 16: Other information

**Full text of other abbreviations:**
2006/15/EC : Europe. Indicative occupational exposure limit values
DE DFG MAK : Germany. MAK BAT Annex IIa
DE TRGS 900 : Germany. TRGS 900 - Occupational exposure limit values.
2006/15/EC / TWA : Limit Value - eight hours
DE TRGS 900 / AGW : Time Weighted Average

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; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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 Harmonised 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 Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; 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 - Organisation 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; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

**History**

| | |
|---|---|
| **Date of issue** | **: 02.08.2025** |
| **Date of previous issue** | **: 02.07.2024** |
| **Version 2.0** | |

**Notice to reader**
The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet and its Annex [if required according to Regulation (EC) 1907/2006 (REACh)] is to describe the products in terms of their safety requirements. The given details do not imply any guarantee concerning the composition, properties or performance.