

## Benzoic acid

Version number: 1.0

### SECTION 1: Identification

#### 1.1 Product identifier

Identification of the substance	benzoic acid
Trade name	<b><u>Benzoic acid</u></b>
CAS number	65-85-0

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

Relevant identified uses	Chemical intermediate Food or feeding stuff Additive
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#### 1.3 Details of the supplier of the safety data sheet

Valudor Products, LLC 179 Calle Magdalena Suite 100 Encinitas, California CA 92024 United States	Telephone: +1 (760) 635 8500 e-mail: info@valudor.com Website: www.valudor.com
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#### 1.4 Emergency telephone number

Emergency information	800-535-5053 (Infotrac)
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As above or nearest toxicological information center.

### SECTION 2: Hazard(s) identification

#### 2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Classification				
Section	Hazard class	Category	Hazard class and category	Hazard statement
A.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
A.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
A.9	specific target organ toxicity - repeated exposure	1	STOT RE 1	H372
B.cD	combustible dust	Comb. Dust	cD	OSHA003

For full text of abbreviations: see SECTION 16

#### The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure.

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## 2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Signal word danger

Pictograms

GHS05, GHS08



Hazard statements

H315 Causes skin irritation.

H318 Causes serious eye damage.

H372 Causes damage to organs (lung) through prolonged or repeated exposure (if inhaled).

OSHA003 May form combustible dust concentrations in air.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves.

P302+P352 If on skin: Wash with plenty of water.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a poison center/doctor.

P321 Specific treatment (see on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

## 2.3 Other hazards

Dust explosion hazards.

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Name of substance benzoic acid

Identifiers

CAS No 65-85-0

RTECS No DG0875000

Molecular formula C7H6O2

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**Molar mass**

122.1 g/mol

## SECTION 4: First-aid measures

### 4.1 Description of first-aid measures

#### General notes

Self-protection of the first aider.

Remove affected person from the danger area and lay down.

Do not leave affected person unattended.

Take off immediately all contaminated clothing.

In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following inhalation

Provide fresh air.

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

In case of respiratory tract irritation, consult a physician.

#### Following skin contact

After contact with skin, wash immediately with plenty of water and soap.

If skin irritation occurs: Get medical advice/attention.

#### Following eye contact

Irrigate copiously with clean, fresh water, holding the eyelids apart.

Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a doctor.

#### Following ingestion

Rinse mouth. Do not induce vomiting.

Get medical advice/attention if you feel unwell.

#### Notes for the doctor

None.

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

Cough, pain, choking, and breathing difficulties.

Following eye contact: Risk of blindness.

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

None.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

water, foam, alcohol resistant foam, fire extinguishing powder

#### Unsuitable extinguishing media

water jet

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

Combustible.

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Hazardous decomposition products: Section 10.

Danger of dust explosion.

## **Hazardous combustion products**

carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>)

### **5.3 Advice for firefighters**

Keep containers cool with water spray.

In case of fire and/or explosion do not breathe fumes.

Coordinate firefighting measures to the fire surroundings.

Do not allow firefighting water to enter drains or water courses.

Collect contaminated firefighting water separately.

Fight fire with normal precautions from a reasonable distance.

## **Special protective equipment for firefighters**

chemical protection suit, Self-contained breathing apparatus (EN 133)

## **SECTION 6: Accidental release measures**

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

#### **For non-emergency personnel**

Remove persons to safety.

Ventilate affected area.

Do not get in eyes, on skin, or on clothing.

Do not breathe dust.

Control of dust.

Eliminate all ignition sources if safe to do so.

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

#### **For emergency responders**

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

### **6.2 Environmental precautions**

Knock down dust with water spray.

Keep away from drains, surface and ground water.

Retain contaminated washing water and dispose of it.

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

#### **Advice on how to contain a spill**

Covering of drains.

Implementation of capping procedures.

#### **Advice on how to clean up a spill**

Take up mechanically.

#### **Other information relating to spills and releases**

Place in appropriate containers for disposal.

Ventilate affected area.

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

Hazardous combustion products: see section 5.

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Personal protective equipment: see section 8.

Incompatible materials: see section 10.

Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Do not get in eyes, on skin, or on clothing.

Do not breathe dust.

#### Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.

Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge.

Removal of dust deposits.

Only vacuum cleaners containing no ignition sources may be used for combustible dusts.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

#### Specific notes/details

Layers, deposits and heaps of combustible dust must be considered, like any other source which can form a hazardous explosive atmosphere.

Danger of dust explosion.

#### Handling of incompatible substances or mixtures

Do not mix with oxidizer

#### Measures to protect the environment

Avoid release to the environment.

Do not empty into drains; dispose of this material and its container at hazardous or special waste collection point.

#### Advice on general occupational hygiene

Do not eat, drink and smoke in work areas.

Wash hands after use.

Preventive skin protection (barrier creams/ointments) is recommended.

Remove contaminated clothing and protective equipment before entering eating areas.

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

#### Explosive atmospheres

Removal of dust deposits.

Only vacuum cleaners containing no ignition sources may be used for combustible dusts.

#### Flammability hazards

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Take precautionary measures against static discharge.

Ground/bond container and receiving equipment.

#### Incompatible substances or mixtures

Incompatible materials: see section 10.

#### Protect against external exposure, such as

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heat

## Consideration of other advice

These information are not available.

## Ventilation requirements

Provision of sufficient ventilation.

## Specific designs for storage rooms or vessels

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

Keep cool.

## Packaging compatibilities

Keep only in original container.

## 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

The following constituents are the only constituents of the product which have a PEL, a TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Occupational exposure limit values (Workplace Exposure Limits)									
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	STEL [ppm]	STEL [mg/m <sup>3</sup> ]	Notation	Source
US	Particulates not otherwise regulated	-	PEL (CA)	-	10	-	-	dust	Cal/OSHA PEL
US	Particulates not otherwise regulated	-	PEL (CA)	-	5	-	-	r	Cal/OSHA PEL
US	particulates not otherwise classified (PNOC)	-	PEL	-	15	-	-	dust	29 CFR 1910.1000
US	particulates not otherwise classified (PNOC)	-	PEL	1,765	-	-	-	partml, dust	29 CFR 1910.1000
US	particulates not otherwise classified (PNOC)	-	PEL	529.5	-	-	-	partml, r, dust	29 CFR 1910.1000
US	particulates not otherwise classified (PNOC)	-	PEL	-	5	-	-	r	29 CFR 1910.1000
US	particulate not otherwise regulated	-	REL	-	-	-	-	appx-D	NIOSH REL
US	benzoic acid	65-85-0	TLV®	-	0.5	-	-	iv, H	ACGIH®

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Occupational exposure limit values (Workplace Exposure Limits)									
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	STEL [ppm]	STEL [mg/m <sup>3</sup> ]	Notation	Source
									2025

## Notation

appx-D see Appendix D - Substances with No Established RELs

dust as dust

H absorbed through the skin

iv inhalable fraction and vapor

partml particles/ml

r respirable fraction

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

## 8.2 Exposure controls

### Appropriate engineering controls

Use local and general ventilation.

### Individual protection measures (personal protective equipment)

#### Eye/face protection

Wear eye/face protection.

#### Hand protection

Protective gloves		
Material	Material thickness	Breakthrough times of the glove material
NBR: acrylonitrile-butadiene rubber	≥ 0,35 mm	>480 minutes (permeation: level 6)
IIR: isobutene-isoprene (butyl) rubber	≥ 0,5 mm	>480 minutes (permeation: level 6)
FKM: fluoro-elastomer	≥ 0,4 mm	>480 minutes (permeation: level 6)
PVC: polyvinyl chloride	≥ 0,5 mm	>480 minutes (permeation: level 6)

Wear suitable gloves.

Chemical protection gloves are suitable, which are tested according to EN 374.

Check leak-tightness/impermeability prior to use.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Body protection

Protective clothing for use against solid particulates.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

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Particle filter device (DIN EN 143).

## Environmental exposure controls

Use appropriate container to avoid environmental contamination.  
Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Physical state</b>	solid (flakes)
<b>Color</b>	white
<b>Odor</b>	characteristic
<b>Odor threshold</b>	not determined
<b>Melting point/freezing point</b>	122 °C
<b>Sublimation point</b>	100 °C
<b>Boiling point or initial boiling point and boiling range</b>	249 °C
<b>Evaporation rate</b>	not determined
<b>Flammability (solid, gas)</b>	this material is combustible, but will not ignite readily
<b>Explosive limits</b>	not determined
<b>Flash point</b>	121 °C
<b>Auto-ignition temperature</b>	not determined
<b>Decomposition temperature</b>	not relevant
<b>pH (value)</b>	2.8 (25 °C)
<b>Viscosity</b>	not relevant (solid)
<b>Solubility(ies)</b>	
Water solubility	3.5 g/l at 25 °C not miscible in any proportion
<b>Partition coefficient</b>	
n-octanol/water (log KOW)	1.88
Soil organic carbon/water (log KOC)	1.191 (Q)sar (ECHA)
<b>Vapor pressure</b>	0.001 hPa at 20 °C

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## Density and/or relative density

Density	1.321 g/cm <sup>3</sup> at 20 °C
Relative density / Relative vapour density	1.321 at 20 °C (water = 1)

## 9.2 Other information

**Information for relevant hazard classes according to GHS** there is no additional information

### Other safety characteristics

Surface tension	67.5 mN/m (20 °C, 1 g/l) (OECD Guideline 115)
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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.  
See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

Danger of dust explosion.

### 10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Take precautionary measures against static discharge.  
Control of dust.

### 10.5 Incompatible materials

oxidizers

### 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.  
Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

If not otherwise specified the classification is based on:

Animal studies; Evidence from any other toxicity tests; Expert judgment (weight of evidence determination).

#### Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

##### Acute toxicity

Shall not be classified as acutely toxic (oral).

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Shall not be classified as acutely toxic (dermal).  
Shall not be classified as acutely toxic (inhalation).

Exposure route	Endpoint	Value	Species	Method	Source
oral	LD50	2,565 mg/kg	rat	OECD Guideline 401	ECHA
inhalation: dust/mist	LC0	>12,200 mg/m <sup>3</sup> /4h	rat	-	ECHA
dermal	LD0	>2,000 mg/kg	rabbit	-	ECHA

## Skin corrosion/irritation

Causes skin irritation.

## Serious eye damage/eye irritation

Causes serious eye damage.

## Respiratory or skin sensitization

### Skin sensitization

Shall not be classified as a skin sensitizer.

## Respiratory sensitization

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

## Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

## Carcinogenicity

Shall not be classified as carcinogenic.

## IARC Monographs

not listed

## National Toxicology Program (United States)

not listed

## OSHA Carcinogens

Not listed.

## Reproductive toxicity

Shall not be classified as a reproductive toxicant.

## Specific target organ toxicity - single exposure

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

## Specific target organ toxicity - repeated exposure

Causes damage to organs (lung) through prolonged or repeated exposure (if inhaled).

Hazard category	Target organ	Exposure route
1	lung	if inhaled

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<b>Chronic toxicity</b>					
<b>Exposure route</b>	<b>Endpoint</b>	<b>Value</b>	<b>Species</b>	<b>Method</b>	<b>Source</b>
inhalation: dust/mist	NOAEC	$\leq 25 \text{ mg/m}^3$	rat	OECD Guideline 412	ECHA
inhalation: dust/mist	NOAEL	$250 \text{ mg/m}^3$	rat	OECD Guideline 412	ECHA
dermal	NOEC	$>2,500 \text{ mg/kg}$	rabbit	EPA OPP 82-2	ECHA
oral	NOAEL	$1,000 \text{ mg/kg bw}$ /day	rat		ECHA

## Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## 11.2 Other information

There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity (acute)

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

<b>Endpoint</b>	<b>Exposure time</b>	<b>Value</b>	<b>Species</b>	<b>Method</b>	<b>Source</b>
LC50	96 h	$44.6 \text{ mg/l}$	bluegill ( <i>Lepomis macrochirus</i> )	EPA-660/3-75-001	ECHA
LC50	48 h	$>100 \text{ mg/l}$	daphnia magna	EPA-660/3-75-009	ECHA
ErC50	72 h	$>33.1 \text{ mg/l}$	algae ( <i>raphidocelis subcapitata</i> )	OECD Guideline 201	ECHA

#### Aquatic toxicity (chronic)

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

<b>Endpoint</b>	<b>Exposure time</b>	<b>Value</b>	<b>Species</b>	<b>Method</b>	<b>Source</b>
NOEC	21 d	$\geq 25 \text{ mg/l}$	daphnia magna	OECD Guideline 211	ECHA
NOEC	28 d	$>120 \text{ mg/l}$	rainbow trout ( <i>Oncorhynchus mykiss</i> )	OECD Guideline 204	ECHA
growth rate (ErCx) 10%	72 h	$3.4 \text{ mg/l}$	algae ( <i>raphidocelis subcapitata</i> )	OECD Guideline 201	ECHA

### 12.2 Persistence and degradability

#### Biodegradation

The substance is readily biodegradable.

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Process of degradability				
Process	Degradation rate	Time	Method	Source
carbon dioxide generation	89.5 %	35 d	OECD Guideline 311	ECHA

## Persistence

The substance is not persistent.

## 12.3 Bioaccumulative potential

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

**n-octanol/water (log KOW)** 1.88  
(ECHA)

## 12.4 Mobility in soil

The substance is very mobile.

**The Organic Carbon normalised adsorption coefficient** 1.191  
(ECHA)

## 12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

## 12.6 Other adverse effects

Data are not available.

### Remarks

None.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Sewage disposal-relevant information

Do not empty into drains.

#### Waste treatment of containers/packages

Completely emptied packages can be recycled.  
Handle contaminated packages in the same way as the substance itself.

### Remarks

Please consider the relevant national or regional provisions.

## SECTION 14: Transport information

- 14.1 UN number** not subject to transport regulations
- 14.2 UN proper shipping name** -
- 14.3 Transport hazard class(es)** -

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- 14.4 **Packing group** -
- 14.5 **Environmental hazards** -
- 14.6 **Special precautions for user** -
- 14.7 **Transport in bulk according to IMO instruments** -

## 14.8 Information for each of the UN Model Regulations

### Transport of dangerous goods by road or rail (49 CFR US DOT) Additional information

Not subject to transport regulations.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question

#### National regulations (United States)

**Toxic Substance Control Act (TSCA)** Substance is listed (ACTIVE)

#### Superfund Amendment and Reauthorization Act (SARA TITLE III)

**The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)**

Not listed

#### Specific Toxic Chemical Listings (EPCRA Section 313)

Not listed

#### Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

##### List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Name of substance	Name acc. to inventory	CAS No	Re- marks	Stat- utory code	Final RQ pounds (Kg)
benzoic acid	benzoic acid	65-85-0	-	1	5000 (2270)

#### Legend

1 "1" indicates that the statutory source is section 311(b)(2) of the Clean Water Act

#### Clean Air Act

Not listed

#### Right to Know Hazardous Substance List

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## Toxic or Hazardous Substance List (MA-TURA)

Name of substance	Name acc. to inventory	CAS No	DEP CODE	PBT / HHS / LHS	PBT / HHS Thres hold	De Minimis Concentration Threshold
benzoic acid	Benzoic acid	65-85-0	-	-	-	1.0 %

## Hazardous Substances List (MN-ERTK)

Not listed

## Hazardous Substance List (NJ-RTK)

Name of substance	Name acc. to inventory	CAS No	Remarks	Classifications	Listed in	Substance number	DOT number
benzoic acid	benzoic acid	65-85-0	-		3 8 15 17 20	0209	3077

### Legend

- 15 "Fire Protection Guide to Hazardous Materials," N FPA 49 (Hazardous Chemicals Data), NFPA 325 (Guide to Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids), and NFPA 704 (Standard System for the Identification of the Hazards of Materials for Emergency Response), National Fire Protection Association (NFPA), 2001.
- 17 "2008 Emergency Response Guidebook," Research and Special Programs Administration, U.S. Department of Transportation, 2008.
- 20 List of Hazardous Substances and Reportable Quantities (RQ) , Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), U.S. Environmental Protection Agency, 40 CFR 302, Table 302.4, July 1, 2008.
- 3 Office of Hazardous Materials Safety, Research and Special Programs Administration, U.S. Department of Transportation, 49 CFR 172.101-Hazardous Materials Table, October 1, 2008.
- 8 Integrated Risk Information System (IRIS) Database for Risk Assessment, Office of Research and Development, National Center for Environmental Assessment, U.S. Environmental Protection Agency (EPA), September 2008.

## Hazardous Substance List (Chapter 323) (PA-RTK)

Name acc. to inventory	CAS No	Classification
BENZOIC ACID	65-85-0	E

### Legend

- E Environmental hazard

## Hazardous Substance List (RI-RTK)

Not listed

## California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking

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## Water and Toxic Enforcement Act of 1987

Not listed

## Drug precursors, Chemicals designated within the Controlled Substances Act, 21 U.S.C. § 802, paragraphs 34 (list I) and 35 (list II)

Not listed

## SECTION 16: Other information, including date of preparation or last revision

Date of preparation: 2026-01-29

### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH® 2025	From ACGIH®, 2025 TLVs® and BEIs® Book. Copyright 2025. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: <a href="http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement">http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement</a>
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DEP CODE	Department of Environmental Protection Code
DGR	Dangerous Goods Regulations (see IATA/DGR)
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HHS	Higher hazard substance
IARC	International Agency for Research on Cancer
IARC Mono-graphs	IARC Monographs on the Evaluation of Carcinogenic Risks to Humans
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
IMDG	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LHS	Lower hazard substance
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NOAEC	No Observed Adverse Effect Concentration

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Abbr.	Descriptions of used abbreviations
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
ppm	Parts per million
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
STEL	Short-term exposure limit
TLV®	Threshold Limit Values
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

## Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200 (May 20, 2024 eff. July 19, 2024).

Transport of dangerous goods by road or rail (49 CFR US DOT).

International Maritime Dangerous Goods Code (IMDG).

Dangerous Goods Regulations (DGR) for the air transport (IATA).

## List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H315	Causes skin irritation.
H318	Causes serious eye damage.
H372	Causes damage to organs (lung) through prolonged or repeated exposure (if inhaled).
OSHA003	May form combustible dust concentrations in air.

## Responsible for the safety data sheet

Chemical Regulatory Compliance Com- Telephone: +1 (630) 410-1660  
pany e-Mail: GHS@crc-us.com  
Jasper, GA Website: www.crc-us.com  
USA

## Disclaimer

This information is based upon the present state of our knowledge.  
This SDS has been compiled and is solely intended for this product.