

Sodium Bisulfite 99%

Version number: 2.0

SECTION 1: Identification

1.1 Product identifier

Identification of the substance sodium hydrogensulfite
Trade name **Sodium Bisulfite 99%**
CAS number 7631-90-5

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

Relevant identified uses Chemicals for various applications

1.3 Details of the supplier of the safety data sheet

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

1.4 Emergency telephone number

Emergency information 800-535-5053 (Infotrac)
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.1O	acute toxicity (oral)	4	Acute Tox. 4	H302

For full text of abbreviations: see SECTION 16

2.2 Label elements

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

Signal word warning

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Pictograms

GHS07



Hazard statements

H302 Harmful if swallowed.

Precautionary statements

P264 Wash thoroughly after handling.

P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.

P312 Call a poison center/doctor if you feel unwell.

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

2.3 Other hazards

Following inhalation: Inhalation of dust may cause respiratory irritation. Cough, pain, choking, and breathing difficulties.

If swallowed: Asthmatic complaints. Abdominal pain. Circulatory collapse. Nausea. Vomiting. Diarrhoea.

If on skin: Irritant effects. Localized redness.

If in eyes: Irritant effects. Localized redness. Causes tears.

Hazards not otherwise classified

Contact with acids liberates toxic gas.

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	sodium hydrogensulfite
Identifiers	
CAS No	7631-90-5
Molecular formula	HO ₃ S.Na
Molar mass	104.1 g/mol
Purity	99.5%

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Impurities and additives		
Name of substance	Identifier	Wt%
disodium disulphite	CAS No 7681-57-4	< 1

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.

Following skin contact

Wash with plenty of soap and water.

Take off contaminated clothing.

Wash contaminated clothing before reuse.

Following eye contact

Rinse cautiously with water for several minutes.

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

Get medical advice/attention.

Following ingestion

Rinse mouth with water (only if the person is conscious).

Induce vomiting when the affected person is not unconscious.

In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Get medical advice/attention.

Notes for the doctor

None.

4.2 Most important symptoms and effects, both acute and delayed

This information is not available.

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, coordinate firefighting measures to the

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fire surroundings

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.

Hazardous combustion products

sulfur oxides (SO_x)

5.3 Advice for firefighters

Non-combustible.

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

Wear self-contained breathing apparatus

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.

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

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.

Take up mechanically.

Advice on how to clean up a spill

Take up mechanically.

Collect spillage.

Other information relating to spills and releases

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Place in appropriate containers for disposal.
Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5.
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

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.

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.
Remove contaminated clothing and protective equipment before entering eating areas.
Do not breathe dust.
Do not get in eyes, on skin, or on clothing.
Wash hands after use.
Preventive skin protection (barrier creams/ointments) is recommended.

7.2 Conditions for safe storage, including any incompatibilities

Flammability hazards

None.

Incompatible substances or mixtures

Incompatible materials: see section 10.

Protect against external exposure, such as

heat, humidity

Consideration of other advice

Keep away from food, drink and animal feedingstuffs.

Ventilation requirements

Provision of sufficient ventilation.

Specific designs for storage rooms or vessels

Store in a dry place. Store in a closed container.
Store in a well-ventilated place. Keep cool.
Hygroscopic solid.

Packaging compatibilities

Keep only in original container.

7.3 Specific end use(s)

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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 ³]	STEL [ppm]	STEL [mg/m ³]	Notation	Source
US	sodium bisulfite	7631-90-5	PEL (CA)	-	5	-	-	-	Cal/OSHA PEL
US	sodium bisulfite	7631-90-5	REL	-	5 (10 h)	-	-	-	NIOSH REL
US	sodium bisulfite	7631-90-5	TLV®	-	5	-	-	-	ACGIH® 2024

Notation

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
NR: natural rubber, latex	≥ 0,5 mm	>480 minutes (permeation: level 6)
CR: chloroprene (chlorobutadiene) rubber	≥ 0,5 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)
NBR: acrylonitrile-butadiene rubber	≥ 0,35 mm	>480 minutes (permeation: level 6)
PVC: polyvinyl chloride	≥ 0,5 mm	>480 minutes (permeation: level 6)

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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.

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

Appearance

Physical state	solid (granulate)
Color	white
Odor	like sulfur dioxide
Odor threshold	not determined
Other safety parameters	
pH (value)	not applicable
Melting point/freezing point	150 °C
Boiling point or initial boiling point and boiling range	not determined
Flash point	not applicable
Evaporation rate	not determined
Flammability (solid, gas)	non-combustible
Explosive limits	not determined
Explosion limits of dust clouds	not determined
Vapor pressure	not determined
Density and/or relative density	
Density	1.48 g/cm ³
Relative density	1.48 (water = 1)
Relative vapour density	not relevant (solid)

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Solubility(ies)

Water solubility	724 g/l at 20 °C not miscible in any proportion
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Partition coefficient

n-octanol/water (log KOW)	not relevant (inorganic)
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Auto-ignition temperature

not determined

Decomposition temperature

not relevant

Viscosity

not relevant
(solid)

Explosive properties

none

Oxidizing properties

none

Information for relevant hazard classes according to GHS

hazard classes acc. to GHS (physical hazards):
not relevant

9.2 Other information

there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

Section 10.3

10.2 Chemical stability

If exposed to air: Slow decomposition.

10.3 Possibility of hazardous reactions

Dangerous/dangerous reactions with: Air. Acids. Water (Hot)
Contact with acids liberates toxic gas.

10.4 Conditions to avoid

Keep away from heat.
Protect from moisture.

10.5 Incompatible materials

water, acids, bases, oxidizers, NaNO₂, aluminum (powdered metals)
Release of toxic materials with:
acids

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.

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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 (dermal).

Shall not be classified as acutely toxic (inhalation).

Harmful if swallowed.

Exposure route	Endpoint	Value	Species	Method	Source
dermal	LD0	>2,000 mg/kg	rat	OECD Guideline 402	ECHA
inhalation: dust/mist	LC0	>5.5 mg/l/4h	rat	OECD Guideline 403	ECHA

Acute toxicity of components							
Name of substance	CAS No	Exposure route	End-point	Value	Species	Method	Source
disodium disulphite	7681-57-4	oral	LD50	1,540 mg/kg	rat	OECD Guideline 401	ECHA
disodium disulphite	7681-57-4	inhalation: dust/mist	LC50	>5.5 mg/l/4h	rat	OECD Guideline 403	ECHA
disodium disulphite	7681-57-4	dermal	LD50	>2,000 mg/kg	rat	OECD Guideline 402	ECHA

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

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

Respiratory or skin sensitization

Skin sensitization

Classification could not be established because:

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

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Respiratory sensitization

Classification could not be established because:

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

Germ cell mutagenicity

Classification could not be established because:

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

Carcinogenicity

IARC Monographs

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans			
Name of substance	CAS No	Classification	Number
sodium hydrogensulfite		3	-

Legend

3 Not classifiable as to carcinogenicity in humans

National Toxicology Program (United States)

not listed

OSHA Carcinogens

Not listed.

Reproductive toxicity

Classification could not be established because:

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

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

Classification could not be established because:

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

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.

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Aquatic toxicity (acute) of components

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
disodium di-sulphite	7681-57-4	LC50	96 h	>215 – <464 mg/l	orfe (Leuciscus idus)	DIN 38412 T.15	ECHA
disodium di-sulphite	7681-57-4	EC50	48 h	89 mg/l	daphnia magna	79/831/EEC, appendix V, part C	ECHA
disodium di-sulphite	7681-57-4	ErC50	72 h	43.8 mg/l	algae (Desmod-esmus sub-spicatus)	OECD Guideline 201	ECHA

Aquatic toxicity (chronic)

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

Endpoint	Exposure time	Value	Species	Method	Source
EC50	17 h	65 mg/l	activated sludge of a predominantly domestic sewage	-	ECHA
NOEC	21 d	>10 mg/l	daphnia magna	OECD Guideline 211	ECHA
NOEC	34 d	≥316 mg/l	zebra fish (Danio rerio)	OECD Guideline 210	ECHA
growth (EbCx) 10%	17 h	32 mg/l	activated sludge of a predominantly domestic sewage	-	ECHA
growth (EbCx) 90%	3 h	124 mg/l	activated sludge of a predominantly domestic sewage	-	ECHA

Aquatic toxicity (chronic) of components

Name of substance	CAS No	Endpoint	Exposure time	Value	Species	Method	Source
disodium di-sulphite	7681-57-4	NOEC	21 d	>10 mg/l	daphnia magna	OECD Guideline 211	ECHA
disodium di-sulphite	7681-57-4	NOEC	34 d	≥316 mg/l	zebra fish (Danio rerio)	OECD Guideline 210	ECHA
disodium di-sulphite	7681-57-4	NOEC	3 h	1,000 mg/l	microorganisms	OECD Guideline 209	ECHA

12.2 Persistence and degradability

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Biodegradation

The study does not need to be conducted because the substance is inorganic.

Persistence

The study does not need to be conducted because the substance is inorganic.

12.3 Bioaccumulative potential

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

n-octanol/water (log KOW)

not relevant
(inorganic)

12.4 Mobility in soil

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

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

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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)
sodium hydrogensulfite	sodium bisulfite	7631-90-5	-	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

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 Concentra- tion Threshold
sodium hydrogensulfite	Sodium bisulfite	7631-90-5	-	-	-	1.0 %

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Hazardous Substances List (MN-ERTK)

Name of substance	Name acc. to inventory	CAS No	References	Remarks
sodium hydrogensulfite	Sodium bisulfite	7631-90-5	A	-

Legend

A American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH

Hazardous Substance List (NJ-RTK)

Name of substance	Name acc. to inventory	CAS No	Remarks	Classifications	Listed in	Substance number	DOT number
sodium hydrogen-sulfite	sodium bisulfite (sulfurous acid, monosodium salt)	7631-90-5	-	CO.	2 3 4 7 17 20	1685	2693

Legend

- 17 "2008 Emergency Response Guidebook," Research and Special Programs Administration, U.S. Department of Transportation, 2008.
- 2 "2009 TLVs® and BEIs®, Threshold Limit Values and Biological Exposure Indices," American Conference of Governmental Industrial Hygienists (ACGIH), 2009.
- 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.
- 4 "NIOSH Pocket Guide to Chemical Hazards," National Institute for Occupational Safety and Health (NIOSH), U.S. Department of Health and Human Services, No. 2005-149, September 2005.
- 7 IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, "All Supplements, All Volumes, Groups 1, 2A, 2B, and 3, International Agency for Research on Cancer (IARC), World Health Organization, 2008.
- CO Corrosive

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

Name acc. to inventory	CAS No	Classification
SULFUROUS ACID, MONOSODIUM SALT	7631-90-5	E

Legend

E Environmental hazard

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Hazardous Substance List (RI-RTK)

Name of substance	Name acc. to inventory	CAS No	References
sodium hydrogensulfite	Sodium bisulfite	7631-90-5	T

Legend

T Toxicity (ACGIH®)

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking 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: 2023-08-15

Date of last revision: 2025-07-22.

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH®	American Conference of Governmental Industrial Hygienists
ACGIH® 2024	From ACGIH®, 2024 TLVs® and BEIs® Book. Copyright 2024. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
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)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
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

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Abbr.	Descriptions of used abbreviations
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)
NOEC	No Observed Effect Concentration
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
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
H302	Harmful if swallowed.

Responsible for the safety data sheet

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

Disclaimer

This information is based upon the present state of our knowledge.

This SDS has been compiled and is solely intended for this product.