Safety Data Sheet



29 CFR 1910.1200 App D

sodium nitrite

Version number: 1.0

SECTION 1: Identification

- 1.1 **Product identifier** Identification of the substance sodium nitrite **Trade name** sodium nitrite **CAS number** 7632-00-0 1.2 Relevant identified uses of the substance or mixture and uses advised against **Relevant identified uses** Chemicals for various applications Details of the supplier of the safety data sheet 1.3 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 centre.

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 state- ment				
A.10	acute toxicity (oral)	3	Acute Tox. 3	H301				
A.3	serious eye damage/eye irritation	2A	Eye Irrit. 2A	H319				
B.14	oxidizing solid	2	Ox. Sol. 2	H272				

For full text of abbreviations: see SECTION 16

2.2 Label elements

Г

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

Signal word danger

Pictograms

GHS03, GHS06, GHS07

Hazard statements

H272	May intensify fire; oxidizer.
H301	Toxic if swallowed.
H319	Causes serious eye irritation.

Precautionary statements

P210	Keep away from heat.
P220	Keep/store away from clothing/combustible materials.
P221	Take any precaution to avoid mixing with combustibles.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/eye protection/face protection.
P301+P310	If swallowed: 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.
P321	Specific treatment (see on this label).
P330	Rinse mouth.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/interna tional regulations.

2.3 Other 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	sodium nitrite
Identifiers	
CAS No	7632-00-0
Molecular formula	NO2Na
Molar mass	69 ^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. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

Provide fresh air.

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following skin contact

Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

Following eye contact

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Following ingestion

IF SWALLOWED: Immediately call a doctor. Rinse mouth immediately and drink plenty of water. Let water be drunken in little sips (dilution effect). Induce vomiting when the affected person is not unconscious.

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.

None.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

water mist

Unsuitable extinguishing media

foam, carbon dioxide (CO2)

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10. Oxidizing property.

Hazardous combustion products

nitrogen oxides (NOx), sodium compound

5.3 Advice for firefighters

Non-combustible. Coordinate firefighting measures to the fire surroundings. In case of fire and/or explosion do not breathe fumes. Do not allow firefighting water to enter drains or water courses. 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. Avoid contact with skin and eyes. 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

Knock down dust with water spray. Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Take up mechanically.

Advice on how to clean up a spill

Take up mechanically. Collect spillage.

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. 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

Avoid contact with skin and eyes. 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. Use only in well-ventilated areas. Ground/bond container and receiving equipment. Removal of dust deposits.

Specific notes/details

Dust deposits may accumulate on all deposition surfaces in a technical room.

Handling of incompatible substances or mixtures

Keep away from

organic absorbing material, pulp/paper, combustible materials

Measures to protect the environment

Avoid release to the environment.

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

Flammability hazards

Keep reduction valves/valves and fittings free from oil and grease.

Incompatible substances or mixtures

Incompatible materials: see section 10. Observe compatible storage of chemicals. Keep/store away from clothing/combustible materials. Take any precaution to avoid mixing with combustibles.

Protect against external exposure, such as

heat, humidity, UV-radiation/sunlight

Consideration of other advice

Keep away from food, drink and animal feedingstuffs. Store away from flammable substances. Store away from reducing agents.

Ventilation requirements

Provision of sufficient ventilation.

Specific designs for storage rooms or vessels

Store locked up. Store in a dry place. Store in a closed container. Store in a well-ventilated place. Keep cool.

Packaging compatibilities

Only packagings which are approved (e.g. acc. to DOT) may be used. Steel barrel. Stainless steel. PE: polyethylene.

7.3 Specific end use(s)

Chemicals for various applications.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Γ

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.

Occup	Occupational exposure limit values (Workplace Exposure Limits)								
Coun- try	Name of agent	CAS No	Identi- fier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Nota- tion	Source
US	Particulates not otherwise regu- lated	-	PEL (CA)	-	10	-	-	dust	Cal/OSHA PEL
US	Particulates not otherwise regu- lated	-	PEL (CA)	-	5	-	-	r	Cal/OSHA PEL
US	particulates not otherwise classi- fied	-	REL	-	-	-	-	appx-D	NIOSH REL
US	particulates not otherwise classi- fied (PNOC)	-	PEL	1,766	15	-	-	partml, i, dust	29 CFR 1910.1000
US	particulates not otherwise classi- fied (PNOC)	-	PEL	529.5	5	-	-	partml, r, dust	29 CFR 1910.1000

Notation

appx-D	see Appendix D - Substances with No Established RELs
dust	as dust
i	inhalable fraction
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. (EN 166).

Hand protection

Protective gloves							
Material	Material thickness	Breakthrough times of the glove material					
NBR: acrylonitrile-butadiene rubber	≥ 0,4 mm	>480 minutes (permeation: level 6)					
FKM: fluoro-elastomer	≥ 0,7 mm	>480 minutes (permeation: level 6)					
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	≥ 0,7 mm	>480 minutes (permeation: level 6)					
PVC: polyvinyl chloride	≥ 0,7 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.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. P3, 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

Appearance	
Physical state	solid (different)
Color	white
Odor	characteristic
Odor threshold	not determined
Other safety parameters	
pH (value)	not applicable
Melting point/freezing point	308 °C
Boiling point or initial boiling point and boiling range	not determined (spontaneous decomposition)
Flash point	not applicable
Evaporation rate	these information are not available
Flammability (solid, gas)	non-combustible (oxidizing property)
Explosive limits	not determined
Fundacional lingitaria ficturativada	
Explosion limits of dust clouds	not determined
Vapor pressure	these information are not available
Density	2.17 ^g / _{cm³} (ECHA)
Relative density	2.26 (water = 1)
Relative vapour density	not applicable
Solubility(ies)	
Water solubility	921 ^g / _l at 25 °C 1,800 ^g / _l at 100 °C
Solubility in alcohol	8 ^g /l
Partition coefficient	
n-octanol/water (log KOW)	not relevant (inorganic)
Auto-ignition temperature	not determined
Decomposition temperature	380 °C

Viscosity	not relevant (solid)
Explosive properties	none
Oxidizing properties	oxidizer
Information for relevant hazard classes according to GHS	there is no additional information
Other information	there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

9.2

It's a reactive substance. Oxidizing property.

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

Contact with combustible material may cause fire. In contact with Acids: Toxic substances. Dangerous/dangerous reactions with Organic substances, Combustible materials, Reducing agents, Acids.

10.4 Conditions to avoid

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

10.5 Incompatible materials

acids, reducing agents, Combustible materials, metals, oxidizer, Ammoniumsalze, amine

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

Toxic if swallowed.

(1272/2008/EC, Annex VI)

Inhalation, Dermal.

Classification could not be established because:

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

Exposure route	xposure route Endpoint		Species	Method	Source
oral	LD50	85 – 180 ^{mg} / _{kg}	rat	-	IUCLID

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin. (ECHA, OECD Guideline 404)

Serious eye damage/eye irritation

Causes serious eye irritation. (1272/2008/EC, Annex VI)

Respiratory or skin sensitization Skin sensitization

Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

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

not listed

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.

Endpoint	Exposure time	Value	Species	Method	Source
LC50	96 h	0.54 – 26 .3 ^{mg} / _l	rainbow trout (Onco- rhynchus mykiss)	-	ECHA
LC50	96 h	4.93 ^{mg} / _l	Cherax quadricar- inatus	APHA 1980	ECHA
EC50	48 h	15.4 ^{mg} / _l	daphnia magna	OECD Guideline 202	ECHA
ErC50	72 h	>100 ^{mg} / _l	algae (Desmod- esmus subspicatus)	OECD Guideline 201	ECHA

Aquatic toxicity (chronic)

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

Endpoint	Exposure time	Value	Species	Method	Source
LC50	80 d	>20 ^{mg} / _l	giant tiger prawn (Penaeus monodon)	APHA (1985) and Buikema et al. (1982)	ECHA
EC50	80 d	114.9 ^{mg} / _l	giant tiger prawn (Penaeus monodon)	APHA (1985) and Buikema et al. (1982)	ECHA
EC50	180 min	510 ^{mg} / _l	Activated sludge, municipal	OECD Guideline 209	ECHA
NOEC	29 d	1.05 ^{mg} / _l	carp (cyprinus car- pio)	OECD Guideline 210	ECHA
NOEC	80 d	2 ^{mg} / _l	giant tiger prawn (Penaeus monodon)	APHA (1985) and Buikema et al. (1982)	ECHA

Endpoint	Exposure time	Value	Species	Method	Source
NOEC	72 h	100 ^{mg} /l	algae (Desmod- esmus subspicatus)	OECD Guideline 210	ECHA
growth (EbCx) 10%	180 min	210 ^{mg} / _l	Activated sludge, municipal	OECD Guideline 209	ECHA
growth (EbCx) 80%	180 min	940 ^{mg} / _l	Activated sludge, municipal	OECD Guideline 209	ECHA

12.2 Persistence and degradability

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

n-octanol/water (log KOW)

not relevant (inorganic)

12.4 Mobility in soil

No data available.

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 Endocrine disrupting properties Other adverse effects

Not listed.

Remarks

Wassergefährdungsklasse, WGK (water hazard class): 3 Keep away from drains, surface and ground water.

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.

SECTI	SECTION 14: Transport information					
14.1	UN number					
	DOT	UN1500				
	IMDG-Code	UN1500				
	ΙCAO-TI	UN1500				
14.2	UN proper shipping name					
	DOT	Sodium nitrite				
	IMDG-Code	SODIUM NITRITE				
	ΙCAO-TI	Sodium nitrite				
14.3	Transport hazard class(es)					
	DOT	5.1 (6.1)				
	IMDG-Code	5.1 (6.1)				
	ICAO-TI	5.1 (6.1)				
14.4	Packing group					
	DOT	III				
	IMDG-Code	III				
	ICAO-TI	III				
14.5	Environmental hazards	hazardous to the aquatic environment				
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

Particulars in the shipper's declaration

Reportable quantity (RQ)

UN1500, Sodium nitrite, 5.1 (6.1), III, environmentally hazardous

100 lbs (45.4 kg) (sodium nitrite)

5.1+6.1, fish and tree

yes (hazardous to the aquatic environment)

Danger label(s)



Environmental hazards

	Special provisions (SP)	A1, A29, IB8, IP3, T1, TP33
	ERG No	140
	International Maritime Dangerous Goods Coo	de (IMDG) Additional information
	Marine pollutant	yes (hazardous to the aquatic environment)
	Danger label(s)	5.1+6.1, fish and tree
	Special provisions (SP)	-
	Excepted quantities (EQ)	E1
	Limited quantities (LQ)	5 kg
	EmS	F-A, S-Q
	Stowage category	A
	Segregation group	12 - Nitrites and their mixtures.
	International Civil Aviation Organization (ICA	O-IATA/DGR) Additional information
	Environmental hazards	yes (hazardous to the aquatic environment)
	Danger label(s)	5.1+6.1
	Excepted quantities (EQ)	E1
	Limited quantities (LQ)	10 kg
SECTIO	ON 15: Regulatory information	
15.1	Safety, health and environmental regulation	s 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 Section 302, 304)	Their Threshold Planning Quantities (EPCRA

Not listed

Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings				
Name of substance CAS No Remarks Effective date				
sodium nitrite	7632-00-0	-	1995-01-01	

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	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
sodium nitrite	7632-00-0	-	1	100 (45,4)

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

Cleaning Product Right to Know Act Substance List (CA-RTK)

Not listed

Toxic or Hazardous Substance List (MA-TURA)

Name of substance	CAS No	DEP CODE	PBT / HHS / LHS	PBT / HHS Thresho Id	De Minimis Con- centration Threshold
sodium nitrite	7632-00-0	-	-	-	1.0 %

Hazardous Substances List (MN-ERTK)

Not listed

Hazardous Substance List (NJ-RTK)

Name of substance	Name acc. to in- ventory	CAS No	Remarks	Classifica- tions	Lis- ted in	Sub- stanc e num- ber	DOT num- ber
sodium nitrite	sodium nitrite	7632- 00-0	-		3 6 17 18 20	2258	1500

Legend

17 "2008 Emergency Response Guidebook," Research and Special Programs Administration, U.S. Department of

Legend

Transportation, 2008.

- 18 List of Toxics Release Inventory Chemicals, Section 313, Emergency Planning and Community Right to Know Act (EPCRA), Toxics Release Inventory (TRI) Program, U.S. Environmental Protection Agency, 40 CFR 372.65, July 1, 2008.
- 20 List of Hazardous Substances and Reportable Quantities (RQ), Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), U.S. Environmenta l 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.
- 6 "Environmental Hazardous Substance List," New Jersey Department of Environmental Protection, N.J.A.C. 7:1G-2, as printed in the Community Right to Know Survey Instruction Book, 2008.

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

Name acc. to inventory	CAS No	Classification
NITROUS ACID, SODIUM SALT	7632-00-0	E

Legend

E Environmental hazard

Hazardous Substance List (RI-RTK)

Not listed

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

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	/	none
Health	2	temporary or minor injury may occur
Flammability	0	material that will not burn under typical fire conditions
Physical hazard	1	material that is normally stable but can become unstable (self-react) at high temperatures and pressures. Material may react non-violently with water or un- dergo hazardous polymerization in the absence of inhibitors
Personal protection	-	-

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	0	material that will not burn under typical fire conditions
Health	2	material that, under emergency conditions, can cause temporary incapacitation or residual injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard	OX	oxidizer that causes a severe increase in the burning rate of combustible materi- als with which it comes into contact

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance by the supplier.

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

Date of preparation: 2023-04-24

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
1272/2008/EC, Annex VI	Harmonised classification and labelling for certain hazardous substances
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazard- ous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
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 sub- stances)
DEP CODE	Department of Environmental Protection Code
DGR	Dangerous Goods Regulations (see IATA/DGR)
DOT	Department of Transportation (USA)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance caus- ing 50 % changes in response (e.g. on growth) during a specified time interval
EmS	Emergency Schedule
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
ERG No	Emergency Response Guidebook - Number
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations

Abbr.	Descriptions of used abbreviations
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)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	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 dur- ing 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
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
ppm	Parts per million
STEL	Short-term exposure limit
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.

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
H272	May intensify fire; oxidizer.
H301	Toxic if swallowed.
H319	Causes serious eye irritation.

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.