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1.1 Prod	uct identifier
	ume: <u>Sodium hydrosulphite</u> Il Identification: Sodium Dithionite
Article n CAS Nut	umber: 6021 mber:
7775-14- EC num 231-890-	ber:
Registra 1.2 Relev	tion number 01-2119520510-57 want identified uses of the substance or mixture and uses advised against er relevant information available.
Applicat	ion of the substance / the mixture g agent/ Deoxidiser adustry
1.3 Deta Manufa	ils of the supplier of the safety data sheet cturer/Supplier: Themie GmbH & Co. KG
Bürgerka D-48565 Tel.: 025	amp 1 Steinfurt 51/9340-0
	51/9340-60
1.4 Eme	information obtainable from: Product safety department rgency telephone number: Control Center Mainz - 24 hour emergency service - Tel.: +49 (0) 6131/19240
	ON 2: Hazards identification
2.1 Class	
2.1 Class Classific	ON 2: Hazards identification sification of the substance or mixture ation according to Regulation (EC) No 1272/2008
2.1 Class Classific	ON 2: Hazards identification sification of the substance or mixture ation according to Regulation (EC) No 1272/2008 GHS02 flame
2.1 Class Classific	ON 2: Hazards identification sification of the substance or mixture ation according to Regulation (EC) No 1272/2008 GHS02 flame A H251 Self-heating: may catch fire.
2.1 Class Classific Self-heat Acute To 2.2 Labe Labellin The subs	ON 2: Hazards identification sification of the substance or mixture ation according to Regulation (EC) No 1272/2008 GHS02 flame . 1 H251 Self-heating: may catch fire. GHS07 x. 4 H302 Harmful if swallowed. I elements g according to Regulation (EC) No 1272/2008 tance is classified and labelled according to the CLP regulation.
2.1 Class Classific Self-heat Acute To 2.2 Labe Labellin The subs	ON 2: Hazards identification sification of the substance or mixture ation according to Regulation (EC) No 1272/2008 GHS02 flame : 1 H251 Self-heating: may catch fire. GHS07 x. 4 H302 Harmful if swallowed. I elements g according to Regulation (EC) No 1272/2008
2.1 Class Classific Self-heat Acute To 2.2 Labe Labellin The subs Hazard p	 ON 2: Hazards identification sification of the substance or mixture ation according to Regulation (EC) No 1272/2008 GHS02 flame 1 H251 Self-heating: may catch fire. GHS07 x. 4 H302 Harmful if swallowed. I elements g according to Regulation (EC) No 1272/2008 tance is classified and labelled according to the CLP regulation. spictograms
2.1 Class Classific Self-heat Acute To 2.2 Labe Labellin The subs	ON 2: Hazards identification sification of the substance or mixture ation according to Regulation (EC) No 1272/2008 GHS02 flame . 1 H251 Self-heating: may catch fire. GHS07 x. 4 H302 Harmful if swallowed. I elements g according to Regulation (EC) No 1272/2008 tance is classified and labelled according to the CLP regulation.
2.1 Class Classific Self-heat Acute To 2.2 Labe Labelling The subs Hazard p GHS02 Signal w Hazard s	ON 2: Hazards identification sification of the substance or mixture ation according to Regulation (EC) No 1272/2008 GHS02 flame 1 H251 Self-heating: may catch fire. GHS07 x. 4 H302 Harmful if swallowed. I elements g according to Regulation (EC) No 1272/2008 tance is classified and labelled according to the CLP regulation. bittograms bittograms ofHS07
2.1 Class Classific Self-heat Acute To 2.2 Labe Labelling The subs Hazard p GHS02 Signal w Hazard s Hazard s Hazard s Hazard s Hazard s	ON 2: Hazards identification sification of the substance or mixture ation according to Regulation (EC) No 1272/2008 GHS02 flame .1 H251 Self-heating: may catch fire. GHS07 x. 4 H302 Harmful if swallowed. I elements g according to Regulation (EC) No 1272/2008 tance is classified and labelled according to the CLP regulation. oictograms GHS07 ord Danger

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- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
 P413 Store bulk masses greater than 0,5 kg at temperatures not exceeding 50°C.
- P420 Store separately.

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

· Additional information:

EUH031 Contact with acids liberates toxic gas.

· 2.3 Other hazards

The product does not contain any substance above the legal limits included on the list for endocrine disrupting properties established under Article 59(1) of Regulation (EC) No 1907/2006 or under Commission Delegated Regulation (EU) 2017/2100 or of Commission Regulation (EU) 2018/605 has endocrine disrupting properties.

· Results of PBT and vPvB assessment

· **PBT:**

The product does not contain any substances above legal limits that meet the criteria for PBT (persistent, bioaccumulative and toxic).

· vPvB:

The product does not contain any substances above legal limits that meet the criteria for vPvB (very persistent and very bioaccumulative).

SECTION 3: Composition/information on ingredients

· 3.1 Substances

• CAS No. Description 7775-14-6 Sodium hydrosulfite Pure substance with admixture of additive: CAS No.: 497-19-8 sodium carbonate < 5 % EINECS No.: 207-838-8, EG-VO 1272/2008: H319, REACH registration number: 01-2119485498-19

· Identification number(s)

• EC number: 231-890-0

SECTION 4: First aid measures

- · General information: Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact:
- Wash with water and soap and rinse thoroughly.
- If skin irritation continues, consult a doctor.
- After eye contact:
- *Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. Remove any existing contact lenses if possible. Continue rinsing.*
- After swallowing:
- Rinse out mouth and then drink plenty of water.
- Do not induce vomiting; call for medical help immediately.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- +4.3 Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents: Excess water, fire extinguishing powder, carbon dioxide (CO2)
- For safety reasons unsuitable extinguishing agents: Spray water, water mist
- \cdot 5.2 Special hazards arising from the substance or mixture Self-heating; can catch fire

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^{• 4.1} Description of first aid measures

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5.3 Advice for firefighters
Cool containers with water spray.
Do not inhale explosion gases and fumes
Co-ordinate fire-fighting measures to the fire surroundings.
Do not let fire-fighting water get into the canals and bodies of water.
Collect contaminated fire fighting water separately.
Fight fire with normal precautions from a reasonable distance.

• Protective equipment:

Chemical protective clothing, self-contained breathing apparatus (autonomous breathing apparatus, EN 133)

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Avoid contact with eyes and skin Ensure adequate ventilation Do not breathe dust. Avoid formation of dust. Keep away from ignition sources. Keep away from flammable materials.
6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

- 6.3 Methods and material for containment and cleaning up: Ensure adequate ventilation.
- 6.4 Reference to other sections See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

• 7.1 Precautions for safe handling Store in a cool, dry place in tightly closed containers. Ensure good ventilation / exhaustion at the workplace. Avoid aerosol formation.

• Information about fire - and explosion protection: Keep ignition sources away - Do not smoke. Any ingress of moisture must be prevented.

• 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

Requirements to be met by storerooms and receptacles: Keep container tightly closed Keep us in a cool, well-ventilated place. Protect from moisture.
Information about storage in one common storage facility: Store away from oxidising agents. Store away from water.

Store away from acids. Protect from heat.

Protect from neat.

- Store separately from oxidising and highly flammable substances. • Further information about storage conditions:
- Keep container tightly sealed.
- Store receptacle in a well ventilated area.
- Storage class: 4.2 Self-igniting substances
- 7.3 Specific end use(s) No further relevant information available.

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SECHO	N 8: Exposure controls/personal protection
8.1 Control	parameters
	with limit values that require monitoring at the workplace:
	ioxide CAS: 7446-09-5 MAK SMW 1 ppm, SMW 2.7 mg / m ³ , KZW 1 ppm, KZW 2.7 mg / m ³ , DF
	lioxide CAS: 7446-09-5 AGW SMW 1 ppm, SMW 2.5 mg / m ³ , KZW 1 ppm, KZW 2.5 mg /
TRGS 900	
	ioxide CAS: 7446-09-5 IOELV SMW 0.5 ppm, SMW 1.3 mg / m³, KZW 1 ppm, KZW 2.7 mg /
2017/164 / 1	
Note	
	term value (limit value for short-term exposure): limit value that should not be exceeded, based
	of 15 minutes (unless otherwise specified)
	werage (limit value for long-term exposure): Time-weighted average, measured or calculated
	period of eight hours (unless otherwise stated)
DNELs	
	ustry) - human, inhalatory - chronic - systemic effects - 206 mg/m³
	VELs of components of the mixture:
	bonate, CAS no .: 497-19-8
	ustry) - human, inhalatory - chronic - local effects - 10 mg/m ³
PNECs	
Fresh water	$\cdot 1 m\sigma/l$
Sea water 0.	
	ttment plant (STP) 8.98 mg/l
	information: The lists valid during the making were used as basis.
8.2 Exposur	
	e engineering controls No further data; see item 7.
	protection measures, such as personal protective equipment
	otective and hygienic measures:
	from foodstuffs, beverages and feed.
	before breaks and at the end of work.
	ct with the eyes and skin.
	remove all soiled and contaminated clothing
	protection: Not required.
Hand prote	
	ing tests no recommendation to the glove material can be given for the product/ the preparati
the chemica	
	f the glove material on consideration of the penetration times, rates of diffusion and
degradation	
Material of	
	n of the suitable gloves does not only depend on the material, but also on further marks of qua
	rom manufacturer to manufacturer.
	onitrile butadiene rubber
	inyl chloride
	ıbber, isobutene-isoprene rubber
	time of glove material
	reak through time has to be found out by the manufacturer of the protective gloves and has to
observed.	
Eye/face pro	otection
	Fightly sealed goggles
	ignity searca zozzies
	tion: Protective work clothing
Body protec	
	ntal exposure controls To avoid environmental contamination use a proper container

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Colour: Odour: Melting point/freezing point: Boiling point or initial boiling point and boiling range Flammability Lower and upper explosion limit Lower: Upper: Flash point: Decomposition temperature: pH Viscosity: Kinematic viscosity	Solid White Sulfurous 300 °C No data available Self-heating mixture according to GHS criteria Not determined. Not determined. not applicable 52 °C Not applicable.
Physical state Colour: Odour: Melting point/freezing point: Boiling point or initial boiling point and boiling range Flammability Lower and upper explosion limit Lower: Upper: Flash point: Decomposition temperature: pH Viscosity: Kinematic viscosity	White Sulfurous 300 °C No data available Self-heating mixture according to GHS criteria Not determined. Not determined. not applicable 52 °C Not applicable.
Colour: Odour: Melting point/freezing point: Boiling point or initial boiling point and boiling range Flammability Lower and upper explosion limit Lower: Upper: Flash point: Decomposition temperature: pH Viscosity: Kinematic viscosity	White Sulfurous 300 °C No data available Self-heating mixture according to GHS criteria Not determined. Not determined. not applicable 52 °C Not applicable.
Odour: Melting point/freezing point: Boiling point or initial boiling point and boiling range Flammability Lower and upper explosion limit Lower: Upper: Flash point: Decomposition temperature: pH Viscosity: Kinematic viscosity	Sulfurous 300 °C No data available Self-heating mixture according to GHS criteria Not determined. Not determined. not applicable 52 °C Not applicable.
Melting point/freezing point: Boiling point or initial boiling point and boiling range Flammability Lower and upper explosion limit Lower: Upper: Flash point: Decomposition temperature: pH Viscosity: Kinematic viscosity	300 °C No data available Self-heating mixture according to GHS criteria Not determined. Not determined. not applicable 52 °C Not applicable.
Boiling point or initial boiling point and boiling range Flammability Lower and upper explosion limit Lower: Upper: Flash point: Decomposition temperature: pH Viscosity: Kinematic viscosity	No data available Self-heating mixture according to GHS criteria Not determined. Not determined. not applicable 52 °C Not applicable.
range Flammability Lower and upper explosion limit Lower: Upper: Flash point: Decomposition temperature: pH Viscosity: Kinematic viscosity	Self-heating mixture according to GHS criteria Not determined. Not determined. not applicable 52 °C Not applicable.
Flammability Lower and upper explosion limit Lower: Upper: Flash point: Decomposition temperature: pH Viscosity: Kinematic viscosity	Self-heating mixture according to GHS criteria Not determined. Not determined. not applicable 52 °C Not applicable.
Lower and upper explosion limit Lower: Upper: Flash point: Decomposition temperature: pH Viscosity: Kinematic viscosity	Not determined. Not determined. not applicable 52 °C Not applicable.
Lower: Upper: Flash point: Decomposition temperature: pH Viscosity: Kinematic viscosity	Not determined. not applicable 52 °C Not applicable.
Upper: Flash point: Decomposition temperature: pH Viscosity: Kinematic viscosity	Not determined. not applicable 52 °C Not applicable.
Flash point: Decomposition temperature: pH Viscosity: Kinematic viscosity	not applicable 52 °C Not applicable.
Decomposition temperature: pH Viscosity: Kinematic viscosity	52 °C Not applicable.
pH Viscosity: Kinematic viscosity	Not applicable.
Viscosity: Kinematic viscosity	
Kinematic viscosity	Not applicable
•	Not applicable.
Solubility	225 //
	225 g/l
	-4.7 log KOW
I I I I I I I I I I I I I I I I I I I	< 0.01 hPa
Density and/or relative density	2 2 0 / 3
	2.38 g/cm^3
	Not determined.
	Not applicable.
Particle characteristics	See item 3.
9.2 Other information	
Appearance:	
Form:	Solid
Important information on protection of health and	
environment, and on safety.	
Auto-ignition temperature:	$> 80 \ ^{\circ}C$ (EU Method A.16 ECHA)
Explosive properties:	Product is not explosive. Formation of explosive dust
,	air mixtures possible.
Molecular weight	174.11 g/mol
Change in condition	
Softening point/range	
	not classified as oxidizing
Evaporation rate	Not applicable.
Information with regard to physical hazard classes	
	Void
	Void
8	Void
	Void
	Void
	Void
1	Void
	Void
	Void
- J. · P. · · · · · · · · · · · · · · · · ·	Void
	Self-heating: may catch fire.
Sey-nearing substances and mixtures Substances and mixtures, which emit flammable	sey neuring, may calen jire.
	Void
5	Void

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· Oxidising solids	Void	
· Organic peroxides	Void	
· Corrosive to metals	Void	
· Desensitised explosives	Void	

SECTION 10: Stability and reactivity

· 10.1 Reactivity The mixture contains reactive substance (s). Self-heating property. · 10.2 Chemical stability • Thermal decomposition / conditions to be avoided: When heated: Risk of ignition, risk of self-ignition • 10.3 Possibility of hazardous reactions Develops toxic gases on contact with acids. · 10.4 Conditions to avoid Keep away from heat, hot surfaces, sparks, open flames and other types of ignition sources. Do not smoke. UV radiation / sunlight. Protect from moisture · 10.5 Incompatible materials: oxidizing agent Acids. water Release of toxic materials with: acids · 10.6 Hazardous decomposition products: Hazardous combustion products: sulfur dioxide (SO2).

SECTION 11: Toxicological information

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

· Acute toxicity Harmful if swallowed.

• Specific symptoms in biological assay:

Acute toxicity:

LD50, $oral \sim 2,500 \text{ mg} / \text{kg rat ECHA}$

LC50, inhalation, dust / mist:> 5.5 mg / l / 4h rat ECHA data on similar substances were used LD50, dermal> 2,000 mg / kg rat OECD Guideline ECHA 402 data on similar substances were used Acute toxicity of components of the mixture:

Sodium carbonate 497-19-8: LD50, oral 2,800 mg / kg rat ECHA

Sodium carbonate 497-19-8: LD50, dermal> 2,000 mg / kg rabbit EPA 16 CFR 1500.40 ECHA

- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.
- 11.2 Information on other hazards
- · Endocrine disrupting properties Substance is not listed.

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SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity:

LC50 62.3 mg / l golden orfe (Leuciscus idus) ECHA 96 h

EC50 98.31 mg / l Daphnia magna ECHA 48 h

ErC50 206.2 mg / l algae (Desmodesmus subspicatus) ECHA 72 h

(Acute) aquatic toxicity of components of the mixture:

Sodium carbonate 497-19-8: LC50 300 mg / l blue sunfish (Lepomis macrochirus) ECHA 96 h

Sodium carbonate 497-19-8: LC50 740 mg / l Koboldkärpfling (Gambusia affinis) ECHA 96 h

Sodium carbonate 497-19-8: EC50 200 - 227 mg / l Daphnia ECHA 48 h

(Chronic) aquatic toxicity: NOEC 316 mg / l zebrafish (Danio rerio) OECD Guideline 210 ECHA data on similar substances were used 34 d

· 12.2 Persistence and degradability No further relevant information available.

• 12.3 Bioaccumulative potential No further relevant information available.

- · 12.4 Mobility in soil No further relevant information available.
- · 12.5 Results of PBT and vPvB assessment

• **PBT:** The product is not considered to be persistent, bioaccumulating nor toxic (PBT).

- vPvB: The product is not considered to be persistent or very bioaccumulative (vPvB).
- 12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11.
- · 12.7 Other adverse effects
- Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

This product and its container must be disposed of as hazardous waste. Do not empty into drains.

- · Uncleaned packaging:
- · Recommendation:

Contaminated packaging should be treated like the substance. Disposal must be made according to official regulations.

• 14.1 UN number or ID number • ADR, IMDG, IATA	UN1384
14.2 UN proper shipping name ADR	1384 SODIUM DITHIONITE (SODIUM HYDROSULPHITE)
IMDG, IATA	SODIUM DITHIONITE (SODIUM HYDROSULPHITE)
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
- Class	4.2 Substances liable to spontaneous combustion.

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4.2	
II	
Not applicable.	
	able to spontaneous combustion.
Not applicable .	
	4.2 II Not applicable. Warning: Substances lid F-A,S-J D IMO

• Transport category • Tunnel restriction code	Maximum net quantity per inner packaging: 50 g Maximum net quantity per outer packaging: 500 g 2 D/E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	0 Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g
· UN "Model Regulation":	UN 1384 SODIUM DITHIONITE (SODIUM HYDROSULPHITE), 4.2, II

0

Code: E2

SECTION 15: Regulatory information

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

· Directive 2012/18/EU

· Limited quantities (LQ)

• Excepted quantities (EQ)

- · Named dangerous substances ANNEX I Substance is not listed.
- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II
- Substance is not listed.
- · REGULATION (EU) 2019/1148
- Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3)) Substance is not listed.
- · Annex II REPORTABLE EXPLOSIVES PRECURSORS Substance is not listed.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Product safety department
- · Contact: Mrs. Steyer
- · Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (REACH) PNEC: Predicted No-Effect Concentration (REACH) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Self-heat. 1: Self-heating substances and mixtures – Category 1	(Contd. of page 8)
Acute Tox. 4: Acute toxicity – Category 4	EU -