

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

TM BIPUR

Version number: GHS 12.1
Replaces version of: 2018-08-14 (GHS 11)

Revision: 2018-08-20

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name **TM BIPUR**
Registration number (REACH) not relevant (mixture)

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

Relevant identified uses
bleaching agent
cleaning agent
biocidal product
professional use (SU22)
industrial use (SU3)

Product category
PC35 washing and cleaning products (including solvent based products)
PC8 biocidal products (e.g. disinfectants, pest control)

Uses advised against
do not use for squirting or spraying
do not use for products which come into direct contact with the skin

1.3 Details of the supplier of the safety data sheet

Thonhauser GmbH
Perlhofgasse 2/1
2372 Giesshübl/Wien
Austria

Telephone: +43 (0)2236 320 272
Telefax: +43 (0)2236 320 273
e-mail: QA@thonhauser.net
Website: www.thonhauser.net

e-mail (competent person) QA@thonhauser.net (Herr Dr. Daniel Herzog)

1.4 Emergency telephone number

Manufacturer **+43 699 141 80 200**
Mon - Thu 07:00 - 15:00, Fri 07:00 - 13:00

Poison centre & Emergency information service

United Kingdom	CHEMTREC UK 24/7 CCN 819393	+44 870 8200418
----------------	--------------------------------	-----------------

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Cat-egory	Hazard class and category	Hazard state-ment
2.16	Substance or mixture corrosive to metals	1	Met. Corr. 1	H290
3.2	Skin corrosion/irritation	1A	Skin Corr. 1A	H314
3.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318
4.1A	Hazardous to the aquatic environment - acute hazard	1	Aquatic Acute 1	H400
4.1C	Hazardous to the aquatic environment - chronic hazard	2	Aquatic Chronic 2	H411

For full text of H-phrases: see SECTION 16.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

TM BIPUR

Version number: GHS 12.1
Replaces version of: 2018-08-14 (GHS 11)

Revision: 2018-08-20

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis. Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word **danger**

- Pictograms

GHS05, GHS09



- Hazard statements

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H410 Very toxic to aquatic life with long lasting effects.

- Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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.
P390 Absorb spillage to prevent material damage.
P391 Collect spillage.
P501 Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling sodium hypochlorite, solution, sodium hydroxide

2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.



SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Conc.	Classification acc. to GHS	Pictograms	M-Factors
Sodium hydroxide	CAS No 1310-73-2 EC No 215-185-5	10 – < 25 wt%	Met. Corr. 1 / H290 Skin Corr. 1A / H314 Eye Dam. 1 / H318		
Active chlorine released from sodium hypochlorite	CAS No 7681-52-9 EC No 231-668-3	1 – < 5 wt%	Acute Tox. 4 / H302 Skin Corr. 1B / H314 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410		M-Factor (acute) = 10.0

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

TM BIPUR

Version number: GHS 12.1
Replaces version of: 2018-08-14 (GHS 11)

Revision: 2018-08-20

Regulation 648/2004/EC on detergents

Labelling of contents	
Constituents	Weight % content (or range)
Phosponates Chlorine-based bleaching agents	Less than 5 %

For full text of abbreviations: see SECTION 16.

Regulation 528/2012/EU concerning the making available on the market and use of biocidal products

Biocidal active substances			
Name of substance	Wt%	w/w	unit
Active chlorine released from sodium hypochlorite	4.29 %	42.9	g/kg

SECTION 4: First aid measures

4.1 Description of first aid measures



General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. 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

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

TM BIPUR

Version number: GHS 12.1
Replaces version of: 2018-08-14 (GHS 11)

Revision: 2018-08-20

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

water spray, alcohol resistant foam, BC-powder, carbon dioxide (CO₂)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Substance or mixture corrosive to metals.

Hazardous combustion products

nitrogen oxides (NO_x), hydrogen chloride (HCl), chlorine (Cl₂)

5.3 Advice for firefighters

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

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

Advices on how to contain a spill

covering of drains

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder, Absorbents and binders, neutralising agents.

Appropriate containment techniques

Use of adsorbent materials.

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. Incompatible substances or mixtures: see section 7. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

TM BIPUR

Version number: GHS 12.1
Replaces version of: 2018-08-14 (GHS 11)

Revision: 2018-08-20

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

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

Use local and general ventilation. Use only in well-ventilated areas.

- Handling of incompatible substances or mixtures

Do not mix with acids.

- Keep away from

acids

- Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Corrosive conditions

Store in corrosive resistant container with a resistant inner liner.

- Incompatible substances or mixtures

Prohibition of joint storage (with): acids, oxidisers, reducing agents, peroxides

- Floors

The materials shall display sufficient resistance to the prevalent chemical conditions (Caustic solutions).

- Protect against external exposure, such as

heat, frost, sunlight, direct light irradiation

- Consideration of other advice

Observe technical data sheet.

Lagerklasse (storage class according to TRGS 510, Germany): 8 B (non-combustible corrosive materials)

- Specific designs for storage rooms or vessels

Floors: The materials shall display sufficient resistance to the prevalent chemical conditions (Caustic solutions).

- Packaging compatibilities (Receptacles / Material)

Only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 Specific end use(s)

These information are not available.

7.4 Other information

Conditions to avoid: heat (exothermic decomposition)

Provide for exhaust ventilation of containers.

storage temperature of 5 °C and up to 20 °C

recommended storage temperature: 5 - 10 °C

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

TM BIPUR

Version number: GHS 12.1
Replaces version of: 2018-08-14 (GHS 11)

Revision: 2018-08-20

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

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]	Source
GB	Sodium hydroxide	1310-73-2	WEL				2	EH40/2005

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).

Relevant DNELs/DMELs/PNECs and other threshold levels

Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Sodium hydroxide	1310-73-2	DNEL	1 mg/m ³	Human, inhalatory	Worker (industry)	Chronic - local effects
Active chlorine released from sodium hypochlorite	7681-52-9	DNEL	1.55 mg/m ³	Human, inhalatory	Worker (industry)	Chronic - local effects
Active chlorine released from sodium hypochlorite	7681-52-9	DNEL	1.55 mg/m ³	Human, inhalatory	Worker (industry)	Chronic - systemic effects

Relevant PNECs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Active chlorine released from sodium hypochlorite	7681-52-9	PNEC	0.21 µg/l	Aquatic organisms	Freshwater	Short-term (single instance)
Active chlorine released from sodium hypochlorite	7681-52-9	PNEC	0.042 µg/l	Aquatic organisms	Marine water	Short-term (single instance)
Active chlorine released from sodium hypochlorite	7681-52-9	PNEC	4.69 mg/l	Microorganisms	Sewage treatment plant (STP)	Short-term (single instance)
Active chlorine released from sodium hypochlorite	7681-52-9	PNEC	11.1 mg/kg	(Top) predators	Water	Short-term (single instance)
Active chlorine released from sodium hypochlorite	7681-52-9	PNEC	0.26 µg/l	Aquatic organisms	Water	Intermittent release

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

TM BIPUR

Version number: GHS 12.1
Replaces version of: 2018-08-14 (GHS 11)

Revision: 2018-08-20

Individual protection measures (personal protective equipment)



Eye/face protection

Wear eye/face protection. Use safety goggle with side protection. Use protective eyewear to guard against splash of liquids. EN 166.

Skin protection

- Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. 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.

- Type of material

PVC: polyvinyl chloride, CR: chloroprene (chlorobutadiene) rubber, IIR: isobutene-isoprene (butyl) rubber

- Breakthrough times of the glove material

>480 minutes (permeation: level 6).

- Protective gloves - Splash protection

Recommended protective gloves (trademark/manufacturer):

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

Wear breathing apparatus if exposed to vapours/dust/spray/gases. In case of inadequate ventilation wear respiratory protection. Combination filtering device (EN 141).

Chemical protective clothing

Wear suitable protective clothing.

Environmental exposure controls

Avoid release to the environment. Refer to special instructions/safety data sheets. Before discharge of the waste water into a municipal waste water treatment facility the product normally needs to be neutralised.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Colour	colourless to light yellow
Odour	characteristic

Other safety parameters

pH (value)	12.2 – 13 (water: 10 ^{g/l}) * (base)
Melting point/freezing point	not determined
Initial boiling point and boiling range	100 °C
Flash point	not determined
Evaporation rate	not determined

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

TM BIPUR

Version number: GHS 12.1
Replaces version of: 2018-08-14 (GHS 11)

Revision: 2018-08-20

Flammability (solid, gas)	not relevant, (fluid)
Explosive limits	not determined
Vapour pressure	32 hPa at 25 °C
Density	1.22 – 1.26 g/cm ³
Vapour density	this information is not available
Solubility(ies)	
- Water solubility	miscible in any proportion
Partition coefficient	
- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	>500 °C
Viscosity	not determined
Explosive properties	none
Oxidising properties	none
9.2 Other information	
Solvent content	87.88 %
Solid content	12.12 %

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". Substance or mixture corrosive to metals.

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

Exhibits an exothermic reaction (with): acids + Oxidisers (Formation of chlorine gas)
Dangerous/dangerous reactions with: base metals (formation of hydrogen)

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

aluminium (Al), zinc (Zn), tin (Sn)

Release of flammable materials with:

light metals (due to the release of hydrogen in an acid/alkaline medium)

10.6 Hazardous decomposition products

Chlorine (Cl), hydrogen chloride (HCl), carbon monoxide (CO), carbon dioxide (CO₂)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

TM BIPUR

Version number: GHS 12.1
Replaces version of: 2018-08-14 (GHS 11)

Revision: 2018-08-20

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Active chlorine released from sodium hypochlorite	7681-52-9	Oral	1,100 mg/kg

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute)

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Active chlorine released from sodium hypochlorite	7681-52-9	EC50	141 µg/l	Aquatic invertebrates	48 h
Active chlorine released from sodium hypochlorite	7681-52-9	ErC50	0.0365 mg/l	Algae	72 h

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

TM BIPUR

Version number: GHS 12.1
Replaces version of: 2018-08-14 (GHS 11)

Revision: 2018-08-20

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Active chlorine released from sodium hypochlorite	7681-52-9	EC50	563 mg/l	Microorganisms	3 h

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Relevant provisions relating to waste

List of wastes

Waste catalogue ordinance (Germany)

Assign arising waste to a waste code according to the national list of waste

- Product

16 05 07x Discarded inorganic chemicals consisting of or containing dangerous substances.

- Product residues

15 01 10x Packaging containing residues of or contaminated by dangerous substances.

- Packagings

15 01 02 Plastic packaging.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1	UN number	1719
14.2	UN proper shipping name	CAUSTIC ALKALI LIQUID, N.O.S.
	Technical name (hazardous ingredients)	sodium hydroxide, Active chlorine released from sodium hypochlorite
14.3	Transport hazard class(es)	
	Class	8 (corrosive substances)
14.4	Packing group	II (substance presenting medium danger)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

TM BIPUR

Version number: GHS 12.1
Replaces version of: 2018-08-14 (GHS 11)

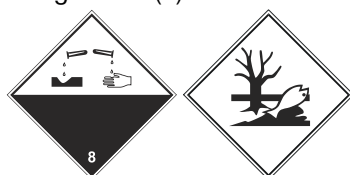
Revision: 2018-08-20

- 14.5 Environmental hazards** hazardous to the aquatic environment (Active chlorine released from sodium hypochlorite)
- 14.6 Special precautions for user**
Provisions for dangerous goods (ADR) should be complied within the premises.
- 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**
The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

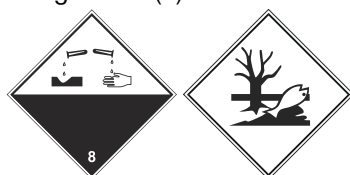
UN number	1719
Proper shipping name	CAUSTIC ALKALI LIQUID, N.O.S.
Class	8
Classification code	C5
Packing group	II
Danger label(s)	8, fish and tree



Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	274
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
Transport category (TC)	2
Tunnel restriction code (TRC)	E
Hazard identification No	80
Emergency Action Code	2R

International Maritime Dangerous Goods Code (IMDG)

UN number	1719
Proper shipping name	CAUSTIC ALKALI LIQUID, N.O.S.
Class	8
Marine pollutant	yes (hazardous to the aquatic environment)
Packing group	II
Danger label(s)	8, fish and tree



Special provisions (SP)	274
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-A, S-B

Safety Data Sheet

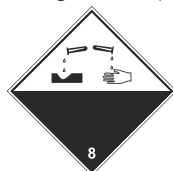
according to Regulation (EC) No. 1907/2006 (REACH)

TM BIPUR

Version number: GHS 12.1
Replaces version of: 2018-08-14 (GHS 11)

Revision: 2018-08-20

Stowage category	A
Segregation group	18 - Alkalis
International Civil Aviation Organization (ICAO-IATA/DGR)	
UN number	1719
Proper shipping name	Caustic alkali liquid, n.o.s.
Class	8
Environmental hazards	YES (hazardous to the aquatic environment)
Packing group	II
Danger label(s)	8



Special provisions (SP)	A3
Excepted quantities (EQ)	E2
Limited quantities (LQ)	0,5 L

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Deco-Paint Directive (2004/42/EC)

VOC content 0 %

Directive on industrial emissions (VOCs, 2010/75/EU)

VOC content 0 %

Regulation 648/2004/EC on detergents

Labelling of contents	
Constituents	Weight % content (or range)
Phosphonates Chlorine-based bleaching agents	Less than 5 %

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
Acute Tox.	Acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)
TM BIPUR

Version number: GHS 12.1
Replaces version of: 2018-08-14 (GHS 11)

Revision: 2018-08-20

Abbr.	Descriptions of used abbreviations
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
Met. Corr.	Substance or mixture corrosive to metals
M-Factor	Means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environment acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in which the substance is present
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
Ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
TRGS	Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)
TWA	Time-weighted average
VOC	Volatile Organic Compounds
VPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

TM BIPUR

Version number: GHS 12.1
Replaces version of: 2018-08-14 (GHS 11)

Revision: 2018-08-20

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

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

Code	Text
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Disclaimer

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