



SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

GRAN BIS

Creation date 10th August 2000
Revision date 27th April 2021 Version 2.0

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

- 1.1. Product identifier** GRAN BIS
Substance / mixture mixture
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**
Mixture's intended use
Heavy foaming product, designed for cleaning and degreasing machines, devices and overall cleaning in food industry by foaming method
- Mixture uses advised against**
not available
- 1.3. Details of the supplier of the safety data sheet**
Manufacturer
Name or trade name TENZI Sp. z o.o.
Address Skarbimierzyce 20, Dołuje, 72-002
Poland
VAT Reg No PL8512583405
Phone +48 91 3119777
E-mail info@tenzi.pl
Web address www.tenzi.pl
- Competent person responsible for the safety data sheet**
Name technolog@tenzi.pl
- 1.4. Emergency telephone number**
European emergency number: 112

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture**
Classification of the mixture in accordance with Regulation (EC) No 1272/2008
The mixture is classified as dangerous.

Skin Irrit. 2, H315
Eye Dam. 1, H318

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse effects on human health and the environment
Causes skin irritation. Causes serious eye damage.

- 2.2. Label elements**
Hazard pictogram



Signal word
Danger

Hazard statements
H315 Causes skin irritation.
H318 Causes serious eye damage.

Precautionary statements
P280 Wear protective gloves/eye protection.
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.

Supplemental information



SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

GRAN BIS

Creation date 10th August 2000
Revision date 27th April 2021 Version 2.0

<5 % anionic surfactants, <5 % cationic surfactants

2.3. Other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
CAS: 85408-49-7 EC: 287-011-6 Registration number: 01-2119490061-47-XXXX	Amines, C12-16-alkyldimethyl, N-oxides	<2	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 2, H411	
CAS: 15763-76-5 EC: 239-854-6 Registration number: 01-2119489411-37-XXXX	Sodium cumene sulfonate	<1,5	Eye Irrit. 2, H319	
Index: 011-002-00-6 CAS: 1310-73-2 EC: 215-185-5 Registration number: 01-2119457892-27-XXXX	sodium hydroxide	<1,4	Met. Corr. 1, H290 Skin Corr. 1A, H314 Specific concentration limit: Skin Corr. 1B, H314: 2 % ≤ C < 5 % Skin Corr. 1A, H314: C ≥ 5 % Eye Irrit. 2, H319: 0,5 % ≤ C < 2 % Skin Irrit. 2, H315: 0,5 % ≤ C < 2 %	

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air.

If on skin

Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. No neutralization should be performed in any case! Rinsing should be continued for 10-30 minutes from the inner to the outer eye corner to make sure that the other eye is not involved. Depending on the situation, call medical rescue service or ensure medical treatment as promptly as possible. Everyone must be referred for treatment even if affected only a little.

If swallowed

DO NOT INDUCE VOMITING - even the induced vomiting can cause complications as in case of detergents and other foaming substances.



SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

GRAN BIS

Creation date	10th August 2000	Version	2.0
Revision date	27th April 2021		

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

If inhaled

Inhaling vapours can cause corrosion of the breathing system.

If on skin

Causes skin irritation.

If in eyes

Causes serious eye damage.

If swallowed

Corrosion of the digestion system can occur.

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

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3. Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Prevent contact with skin and eyes.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water.

6.3. Methods and material for containment and cleaning up

Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies. After removal of the product, wash the contaminated site with plenty of water. Do not use solvents.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Prevent formation of gases and vapours in concentrations exceeding the occupational exposure limits. Prevent contact with skin and eyes. Wash hands and exposed parts of the body thoroughly after handling. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection.

7.2. Conditions for safe storage, including any incompatibilities

Store in a tightly closed, original plastic container (high density polyethylene HDPE). Store this product in a dry environment that will be maintained at 5°C - 35°C temperature with a good ventilation system and an easy washable, nonabsorbable alkaline resistant floor. DO NOT expose the product to sunlight and keep away from heat, frost, sparks, flame and source of ignition.

Storage temperature

+5 ÷ 35 °C

7.3. Specific end use(s)

not available



SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

GRAN BIS

Creation date	10th August 2000	Version	2.0
Revision date	27th April 2021		

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.

DNEL

Amines, C12-16-alkyldimethyl, N-oxides

Workers / consumers	Route of exposure	Value	Effect	Determining method
Consumers	Dermal	5.5 mg/kg	Local chronic effects	
Consumers	Inhalation	3.825 mg/m ³	Local chronic effects	
Consumers	Oral	0.44 ml/kg bw	Local chronic effects	
Workers	Dermal	11 ml/kg bw	Local chronic effects	
Workers	Inhalation	15.5 mg/m ³	Local chronic effects	

Sodium cumene sulfonate

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Dermal	7.6 mg/kg bw/day	Systemic chronic effects	
Workers	Inhalation	53.6 mg/m ³	Systemic chronic effects	
Consumers	Dermal	3.8 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	13.2 mg/m ³	Systemic chronic effects	
Consumers	Oral	3.8 mg/kg bw/day	Systemic chronic effects	

sodium hydroxide

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	1.0 mg/m ³	Local chronic effects	
Consumers	Inhalation	1.0 mg/m ³	Local chronic effects	

PNEC

Amines, C12-16-alkyldimethyl, N-oxides

Route of exposure	Value	Determining method
Drinking water	0.0335 mg/l	
Seawater	0.0335 mg/l	
Freshwater sediment	5.24 mg/kg	
Sea sediments	0.524 mg/kg	
Soil (agricultural)	1.02 mg/kg	

Sodium cumene sulfonate

Route of exposure	Value	Determining method
Drinking water	0.23 mg/l	
Microorganisms in wastewater treatment plants	100 mg/l	
	2.3 mg/l	



SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

GRAN BIS

Creation date	10th August 2000	Version	2.0
Revision date	27th April 2021		

8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

Protective goggles or face shield (based on the nature of the work performed).

Skin protection

Hand protection: Protective gloves resistant to the product. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear. Contaminated skin should be washed thoroughly.

Respiratory protection

It is not needed.

Thermal hazard

Data not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Color	colourless
Odour	Characteristic for the materials used
Melting point/freezing point	data not available
Boiling point or initial boiling point and boiling range	data not available
Flammability	data not available
Lower and upper explosion limit	data not available
Flash point	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
pH	14 (undiluted)
Kinematic viscosity	data not available
Solubility in water	soluble
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	data not available
Density and/or relative density	
Density	1,052 g/cm ³
Relative vapour density	data not available
Particle characteristics	data not available
Form	liquid

9.2. Other information

not available

SECTION 10: Stability and reactivity

10.1. Reactivity

not available

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Unknown.



SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

GRAN BIS

Creation date 10th August 2000
Revision date 27th April 2021 Version 2.0

10.4. Conditions to avoid

The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

10.5. Incompatible materials

Protect against strong acids, bases and oxidizing agents.

10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: Toxicological information

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

No toxicological data is available for the mixture.

Acute toxicity

Based on available data the classification criteria are not met.

Amines, C12-16-alkyldimethyl, N-oxides

Route of exposure	Parameter	Value	Time of exposure	Species	Sex	Source
Skin	LD ₅₀	>2000 mg/kg		Rat (Rattus norvegicus)	F/M	karta charakterystyki
Oral	LD ₅₀	1064 mg/kg		Rat (Rattus norvegicus)	F/M	karta charakterystyki
Oral	ATE	3488.9 mg/kg				karta charakterystyki

Sodium cumene sulfonate

Route of exposure	Parameter	Value	Time of exposure	Species	Sex	Source
Oral	LD ₅₀	>7000 mg/kg		Rat (Rattus norvegicus)		karta charakterystyki
Dermal	LD ₅₀	>2000 mg/kg		Rabbit		karta charakterystyki

sodium hydroxide

Route of exposure	Parameter	Value	Time of exposure	Species	Sex	Source
Intraperitoneally	LD ₅₀	40 mg/kg		Mouse		SDS
Oral	LDL0	500 mg/kg		Rabbit		SDS
Oral	TDLo	44 mg/kg		Rat (Rattus norvegicus)		SDS

Skin corrosion/irritation

Causes skin irritation.

Amines, C12-16-alkyldimethyl, N-oxides

Route of exposure	Result	Method	Time of exposure	Species	Source
Skin	Irritating	OECD 404		Rabbit	karta charakterystyki



SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

GRAN BIS

Creation date 10th August 2000
Revision date 27th April 2021 Version 2.0

Sodium cumene sulfonate

Route of exposure	Result	Method	Time of exposure	Species	Source
	Slightly irritating	OECD 404		Rabbit	karta charakterystyki

Serious eye damage/irritation

Causes serious eye damage.

Amines, C12-16-alkyldimethyl, N-oxides

Route of exposure	Result	Method	Time of exposure	Species	Source
Eye	Corrosive	OECD 405		Rabbit	karta charakterystyki

Sodium cumene sulfonate

Route of exposure	Result	Method	Time of exposure	Species	Source
Eye	Irritating	OECD 405		Rabbit	karta charakterystyki

Sensitization

Sodium cumene sulfonate

Route of exposure	Result	Method	Time of exposure	Species	Sex	Source
Dermal	No effect	OECD 406		Guinea-pig (Cavia aperea f. porcellus)		karta charakterystyki

Respiratory or skin sensitisation

Based on available data the classification criteria are not met.

Amines, C12-16-alkyldimethyl, N-oxides

Route of exposure	Result	Method	Time of exposure	Species	Sex	Source
Skin	Not sensitizing			Human		karta charakterystyki
Skin	Not sensitizing	OECD 406		Guinea-pig (Cavia aperea f. porcellus)		karta charakterystyki

Mutagenicity

Amines, C12-16-alkyldimethyl, N-oxides

Result	Method	Time of exposure	Specific target organ	Species	Sex	Source
Negative	OECD 471			Rat		karta charakterystyki
Negative	EU B.17					karta charakterystyki



SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

GRAN BIS

Creation date 10th August 2000
Revision date 27th April 2021 Version 2.0

Sodium cumene sulfonate

Result	Method	Time of exposure	Specific target organ	Species	Sex	Source
No effect						karta charakterystyki

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Sodium cumene sulfonate

Result	Method	Time of exposure	Specific target organ	Species	Sex	Source
Not carcinogenic	OECD 453			Rat (Rattus norvegicus)		karta charakterystyki

Carcinogenicity

Based on available data the classification criteria are not met.

Amines, C12-16-alkyldimethyl, N-oxides

Route of exposure	Parameter	Method	Value	Time of exposure	Result	Species	Sex	Source
Oral		OECD 471		2 year	Negative	Rat (Rattus norvegicus)		karta charakterystyki

Reproductive toxicity

Based on available data the classification criteria are not met.

Sodium cumene sulfonate

Effect	Parameter	Value	Result	Species	Sex	Source
	NOEL	>936 mg/kg	No effect	Rat (Rattus norvegicus)		karta charakterystyki

Toxicity for specific target organ - single exposure

Based on available data the classification criteria are not met.

Toxicity for specific target organ - 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

not available

SECTION 12: Ecological information

12.1. Toxicity



SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

GRAN BIS

Creation date 10th August 2000
Revision date 27th April 2021 Version 2.0

Acute toxicity

Data for the mixture are not available.

Amines, C12-16-alkyldimethyl, N-oxides

Parameter	Method	Value	Time of exposure	Species	Environment	Source
EC ₅₀		0.1428 mg/l	72 hour	Algae and other aquatic plants		karta karakterystyki
EC ₅₀		>24 mg/l	18 hour	Bacteria (Salmonella typhimurium)		karta karakterystyki
EC ₅₀	OECD 202	3.1 mg/kg	48 hour	Daphnia (Daphnia magna)		karta karakterystyki
LC ₅₀	OECD 203	2.67-3.46 mg/kg	96 hour	Fishes (Oncorhynchus mykiss)		karta karakterystyki

Sodium cumene sulfonate

Parameter	Method	Value	Time of exposure	Species	Environment	Source
EC ₅₀	EPA OTS 797.1300	>1000 mg/l	48 hour	Daphnia (Daphnia magna)		karta karakterystyki
Ebc ₅₀	EPA OTS 797.1050	>230 mg/l	96 hour	Algae (Selenastrum capricornutum)		karta karakterystyki
NOEC	EPA OPPTS 850.1010	31 mg/l	96 hour	Algae (Selenastrum capricornutum)		karta karakterystyki
ErC ₅₀	OECD 209	>1000 mg/l	3 hour	Bacteria (Salmonella typhimurium)	Activated sludge	karta karakterystyki
LD ₅₀	EPA OTS 797.1400	>1000 mg/l	96 hour	Fishes (Oncorhynchus mykiss)		karta karakterystyki

sodium hydroxide

Parameter	Method	Value	Time of exposure	Species	Environment	Source
EC ₅₀		40.4 mg/l	48 hour	Aquatic invertebrates (Ceriodaphnia dubia)		SDS
EC ₅₀		22 mg/l	15 min	Microorganisms (Photobacterium phosphoreum)		SDS

Chronic toxicity

Amines, C12-16-alkyldimethyl, N-oxides

Parameter	Method	Value	Time of exposure	Species	Environment	Source
NOEC		>67 mg/kg	28 day	Algae and other aquatic plants		karta karakterystyki



SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

GRAN BIS

Creation date 10th August 2000
Revision date 27th April 2021 Version 2.0

Amines, C12-16-alkyldimethyl, N-oxides

Parameter	Method	Value	Time of exposure	Species	Environment	Source
NOEC	OECD 211	0.7 mg/l	21 day	Daphnia (Daphnia magna)		karta charakterystyki
NOEC		0.42 mg/kg	302 day	Fishes (Oncorhynchus mykiss)		karta charakterystyki

12.2. Persistence and degradability

Biodegradability

Amines, C12-16-alkyldimethyl, N-oxides

Parameter	Method	Value	Time of exposure	Environment	Result	Source
					Easily biodegradable	karta charakterystyki
	OECD 301B	90 %	28 day		Easily biodegradable	karta charakterystyki
	OECD 303A	69.9-75 %	21 day		Easily biodegradable	karta charakterystyki
	OECD 314	43-63 mg/kg	14 day		Easily biodegradable	karta charakterystyki

Sodium cumene sulfonate

Parameter	Method	Value	Time of exposure	Environment	Result	Source
		100 %	28 day		Easily biodegradable	karta charakterystyki

Surfactants are biodegradable according to the European Parliament and Council Regulation (EC) No. 648/2004 on detergents, as amended.

12.3. Bioaccumulative potential

Amines, C12-16-alkyldimethyl, N-oxides

Parameter	Value	Time of exposure	Species	Environment	Surrounding temperature [°C]	Source
LogPow	<2.7 mg/kg					karta charakterystyki

Sodium cumene sulfonate

Parameter	Value	Time of exposure	Species	Environment	Surrounding temperature [°C]	Source
Logpow	-1.1 mg/kg					karta charakterystyki

Data not available.

12.4. Mobility in soil



SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

GRAN BIS

Creation date	10th August 2000	Version	2.0
Revision date	27th April 2021		

Data not available.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Endocrine disrupting properties

not available

12.7. Other adverse effects

Data not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended.

Waste type code

07 06 04 other organic solvents, washing liquids and mother liquors *

Packaging waste type code

15 01 02 plastic packaging

(*) - Hazardous waste according to Directive 2008/98/EC on hazardous waste

SECTION 14: Transport information

14.1. UN number or ID number

Not subject to ADR

14.2. UN proper shipping name

not available

14.3. Transport hazard class(es)

not available

14.4. Packing group

not available

14.5. Environmental hazards

No

14.6. Special precautions for user

not available

14.7. Maritime transport in bulk according to IMO instruments

not available

SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended. REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents, as amended.



SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

GRAN BIS

Creation date 10th August 2000
Revision date 27th April 2021 Version 2.0

15.2. Chemical safety assessment

Chemical safety assessment has not been carried out for the mixture. Sodium hydroxide: the manufacturer has performed a chemical safety assessment Sodium cumene sulfonate: A Chemical Safety Assessment has been carried out C12-14 alkyldimethyl amine oxides: the manufacturer has performed a chemical safety assessment

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Guidelines for safe handling used in the safety data sheet

P310 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.
P280 Wear protective gloves/eye protection.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR European agreement concerning the international carriage of dangerous goods by road
BCF Bioconcentration Factor
CAS Chemical Abstracts Service
CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL Derived no-effect level
EC Identification code for each substance listed in EINECS
EC₅₀ Concentration of a substance when it is affected 50% of the population
EINECS European Inventory of Existing Commercial Chemical Substances
EmS Emergency plan
EU European Union
EuPCS European Product Categorisation System
IATA International Air Transport Association
IBC International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC₅₀ Concentration causing 50% blockade
ICAO International Civil Aviation Organization
IMDG International Maritime Dangerous Goods
INCI International Nomenclature of Cosmetic Ingredients
ISO International Organization for Standardization
IUPAC International Union of Pure and Applied Chemistry
LC₅₀ Lethal concentration of a substance in which it can be expected death of 50% of the population
LD₅₀ Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC Lowest observed adverse effect concentration
LOAEL Lowest observed adverse effect level
log Kow Octanol-water partition coefficient
MARPOL International Convention for the Prevention of Pollution From Ships
NOAEC No observed adverse effect concentration
NOAEL No observed adverse effect level
NOEC No observed effect concentration
NOEL No observed effect level
OEL Occupational Exposure Limits



SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

GRAN BIS

Creation date	10th August 2000	Version	2.0
Revision date	27th April 2021		

PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted no-effect concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative

Aquatic Acute	Hazardous to the aquatic environment
Aquatic Chronic	Hazardous to the aquatic environment (chronic)
Eye Dam.	Serious eye damage
Eye Irrit.	Eye irritation
Met. Corr.	Corrosive to metals
Skin Corr.	Skin corrosion
Skin Irrit.	Skin irritation

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

The changes (which information has been added, deleted or modified)

General update

More information

Classification procedure - calculation method.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.