

WE MAKE
CHEMISTRY
WORK**NITOSHINE**Version number: GHS 4.0
Replaces version of: 2023-02-09 (GHS 3)

Revision: 2023-07-06

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name **Nitoshine**
Alternative number(s) 57716

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

Relevant identified uses Rinse aid
Cleaning agent

1.3 Details of the supplier of the safety data sheet

Mavro International BV
Heksekamp 1
5301 LX Zaltbommel
Netherlands

Telephone: +31 418 680 680
e-mail: info@mavro-int.com
Website: <https://www.mavro-int.com>

1.4 Emergency telephone number

Emergency information service +31 418 680 680
This number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM

Poison centre					
Country	Name	Postal code/city	Telephone	Telefax	Opening hours
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital		0344 892 0111		Mon - Fri 12:00 AM - 12:00 AM

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

Classification acc. to GHS

Section	Hazard class	Category	Hazard class and category	Hazard statement
3.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319
4.1C	hazardous to the aquatic environment - chronic hazard	2	Aquatic Chronic 2	H411

For full text of abbreviations: see SECTION 16.

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The most important adverse physicochemical, human health and environmental effects

Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

Labelling

- Signal word warning

- Pictograms

GHS07, GHS09



- Hazard statements

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

- Precautionary statements

P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

- Supplemental hazard information

EUH208 Contains P-MENTHA-1,4(8)-DIEEN, DIPENTEEN. May produce an allergic reaction.

- Hazardous ingredients for labelling

2-butoxyethanol, 2-(HEPTADEC-8-ENYL)-4,5-DIHYDRO-1-(2-HYDROXYETHYL)-1H-OLEYLIM-IDAZOLINE-ACETAAT

2.3 Other hazards

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$.

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.


SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures






Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
2-butoxyethanol	CAS No 111-76-2 EC No 203-905-0	10 - < 25	Acute Tox. 4 / H302 Acute Tox. 4 / H312 Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319	

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Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
2-(HEPTADEC-8-ENYL)-4,5-DIHYDRO-1-(2-HYDROXYETHYL)-1H-OLEYLIMIDAZOLINE-ACETATE	CAS No 3388-72-5 EC No 222-218-7	1 - < 5	Acute Tox. 4 / H302 Skin Irrit. 2 / H315 Eye Dam. 1 / H318	
IMIDAZOLIUM COMPOUNDS, 2-C17-UNSATD. ALKYL-1-(2-C18-UNSATD. AMIDOETHYL)-4,5-DIHYDRO-N-METHYL, ME SULFATES	EC No 931-745-8	1 - < 5	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410	
TERPINEOL	CAS No 8000-41-7 EC No 232-268-1	1 - < 5	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319	
P-MENTHA-1,4(8)-DIEEN	CAS No 586-62-9 EC No 209-578-0	< 1	Skin Sens. 1 / H317 Asp. Tox. 1 / H304 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410	
DIPENTEEN	CAS No 138-86-3 EC No 205-341-0 Index No 601-029-00-7	< 1	Flam. Liq. 3 / H226 Skin Irrit. 2 / H315 Skin Sens. 1 / H317 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410	

Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
2-butoxyethanol	-	-	500 mg/kg 1,100 mg/kg 11 mg/4h 1.5 mg/4h	oral dermal inhalation: vapour inhalation: dust/mist
2-(HEPTADEC-8-ENYL)-4,5-DIHYDRO-1-(2-HYDROXYETHYL)-1H-OLEYLIMIDAZOLINE-ACETATE	-	-	500 mg/kg	oral

For full text of abbreviations: see SECTION 16.

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.

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.

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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

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**Hazardous combustion products**

Carbon monoxide (CO), Carbon dioxide (CO₂)

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**Advice on how to contain a spill**

Covering of drains

Advice on how to clean up a spill

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

Appropriate containment techniques

Use of adsorbent materials.

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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

Recommendations

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

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

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 feed-stuffs.

7.2 Conditions for safe storage, including any incompatibilities

Control of effects

Protect against external exposure, such as

frost

- Packaging compatibilities

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

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Notation	Source
EU	2-butoxyethanol	111-76-2	IOELV	20	98	50	246			H	2000/39/EC
GB	2-butoxyethanol	111-76-2	WEL	25	123	50	246				EH40/2005

Notation

Ceiling-C ceiling value is a limit value above which exposure should not occur

H absorbed through the skin

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)

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Biological limit values

Country	Name of agent	Parameter	Notation	Identifier	Value	Source
GB	2-butoxyethanol	2-butoxyacetic acid	crea	BMGV	240 mmol/mol	EH40/2005

Notation

crea creatinine

Relevant DNELs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
2-butoxyethanol	111-76-2	DNEL	98 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
2-butoxyethanol	111-76-2	DNEL	1,091 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects
2-butoxyethanol	111-76-2	DNEL	246 mg/m ³	human, inhalatory	worker (industry)	acute - local effects
2-butoxyethanol	111-76-2	DNEL	125 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
2-butoxyethanol	111-76-2	DNEL	89 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
IMIDAZOLIUM COMPOUNDS, 2-C17-UNSATD.ALKYL-1-(2-C18- UNSATD. AMIDOETHYL)-4,5-DIHYDRO-N-METHYL, ME SULFATES		DNEL	44 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
IMIDAZOLIUM COMPOUNDS, 2-C17-UNSATD.ALKYL-1-(2-C18- UNSATD. AMIDOETHYL)-4,5-DIHYDRO-N-METHYL, ME SULFATES		DNEL	132 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects
IMIDAZOLIUM COMPOUNDS, 2-C17-UNSATD.ALKYL-1-(2-C18- UNSATD. AMIDOETHYL)-4,5-DIHYDRO-N-METHYL, ME SULFATES		DNEL	12.5 mg/kg bw/day	human, dermal	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
2-butoxyethanol	111-76-2	PNEC	8.8 mg/l	aquatic organisms	freshwater	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	0.88 mg/l	aquatic organisms	marine water	short-term (single instance)

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Relevant PNECs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
2-butoxyethanol	111-76-2	PNEC	463 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	34.6 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	3.46 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
2-butoxyethanol	111-76-2	PNEC	2.33 mg/kg	terrestrial organisms	soil	short-term (single instance)
IMIDAZOLIUM COMPOUNDS, 2-C17-UNSATD.ALKYL-1-(2-C18- UNSATD. AMIDOETHYL)-4,5-DIHYDRO-N-METHYL, ME SULFATES		PNEC	10 µg/l	aquatic organisms	freshwater	short-term (single instance)
IMIDAZOLIUM COMPOUNDS, 2-C17-UNSATD.ALKYL-1-(2-C18- UNSATD. AMIDOETHYL)-4,5-DIHYDRO-N-METHYL, ME SULFATES		PNEC	0.2 µg/l	aquatic organisms	marine water	short-term (single instance)
IMIDAZOLIUM COMPOUNDS, 2-C17-UNSATD.ALKYL-1-(2-C18- UNSATD. AMIDOETHYL)-4,5-DIHYDRO-N-METHYL, ME SULFATES		PNEC	5.64 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
IMIDAZOLIUM COMPOUNDS, 2-C17-UNSATD.ALKYL-1-(2-C18- UNSATD. AMIDOETHYL)-4,5-DIHYDRO-N-METHYL, ME SULFATES		PNEC	503 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
IMIDAZOLIUM COMPOUNDS, 2-C17-UNSATD.ALKYL-1-(2-C18- UNSATD. AMIDOETHYL)-4,5-DIHYDRO-N-METHYL, ME SULFATES		PNEC	10.1 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
IMIDAZOLIUM COMPOUNDS, 2-C17-UNSATD.ALKYL-1-(2-C18- UNSATD. AMIDOETHYL)-4,5-DIHYDRO-N-METHYL, ME SULFATES		PNEC	101 mg/kg	terrestrial organisms	soil	short-term (single instance)

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8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374.

- Type of material

Nitrile

- Material thickness

>0,12mm

- Breakthrough times of the glove material

>480 minutes (permeation: level 6)

- Other protection measures

Wash hands thoroughly after handling.

Body protection

Protective clothing against liquid chemicals.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	dark brown
Odour	Perfumed
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	100 °C
Flammability	this material is combustible, but will not ignite readily
Lower and upper explosion limit	not determined
Flash point	not determined

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Auto-ignition temperature	not determined
Decomposition temperature	not relevant
pH (value)	4 – 6.3 (20 °C)
Kinematic viscosity	not determined

Solubility(ies)

Water solubility	miscible in any proportion
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Partition coefficient

Partition coefficient n-octanol/water (log value)	this information is not available
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Vapour pressure	not determined
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Density and/or relative density

Density	0.978 – 0.998 g/cm ³
Relative vapour density	information on this property is not available

Particle characteristics	not relevant (liquid)
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9.2 Other information

Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant
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Other safety characteristics

Miscibility	Completely miscible with water.
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SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

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

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10.5 Incompatible materials

Oxidisers

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

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).

Classification acc. to GHS

Acute toxicity

Shall not be classified as acutely toxic.

- Acute toxicity estimate (ATE)

Oral 1,820 mg/kg

Acute toxicity estimate (ATE) of components of the mixture			
Name of substance	CAS No	Exposure route	ATE
2-butoxyethanol	111-76-2	oral	500 mg/kg
2-butoxyethanol	111-76-2	dermal	1,100 mg/kg
2-butoxyethanol	111-76-2	inhalation: vapour	11 mg/l/4h
2-butoxyethanol	111-76-2	inhalation: dust/mist	1.5 mg/l/4h
2-(HEPTADEC-8-ENYL)-4,5-DIHYDRO-1-(2-HYDROXYETHYL)-1H-OLEYLIMIDAZOLINE-ACETAAT	3388-72-5	oral	500 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Contains P-MENTHA-1,4(8)-DIEEN, DIPENTEEN. May produce an allergic reaction.

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).

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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.

11.2 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
2-butoxyethanol	111-76-2	EC50	297 mg/l	aquatic invertebrates	21 d
IMIDAZOLIUM COMPOUNDS, 2-C17-UNSATD.ALKYL-1-(2-C18-UNSATD.AMIDOETHYL)-4,5-DI-HYDRO-N-METHYL, ME SULFATES		EC50	>145 µg/l	aquatic invertebrates	21 d
IMIDAZOLIUM COMPOUNDS, 2-C17-UNSATD.ALKYL-1-(2-C18-UNSATD.AMIDOETHYL)-4,5-DI-HYDRO-N-METHYL, ME SULFATES		LC50	>145 µg/l	aquatic invertebrates	21 d
P-MENTHA-1,4(8)-DIEEN	586-62-9	EC50	69 mg/l	microorganisms	3 h

12.2 Persistence and degradability

Degradability of components of the mixture						
Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
2-butoxyethanol	111-76-2	carbon dioxide generation	18.3 %	3 d		ECHA
P-MENTHA-1,4(8)-DIEEN	586-62-9	oxygen depletion	81 %	28 d		ECHA

12.3 Bioaccumulative potential

Data are not available.

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Bioaccumulative potential of components of the mixture				
Name of substance	CAS No	BCF	Log KOW	BOD5/COD
2-butoxyethanol	111-76-2		0.81 (pH value: 7, 25 °C)	
IMIDAZOLIUM COMPOUNDS, 2-C17-UNSATD.ALKYL-1-(2-C18-UNSATD. AMIDOETHYL)-4,5-DI-HYDRO-N-METHYL, ME SULFATES		1	>5.7 (pH value: 7, 22 °C)	

12.4 Mobility in soil

Data are not 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. Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

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.

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 or ID number not assigned

14.2 UN proper shipping name not assigned

14.3 Transport hazard class(es) none

14.4 Packing group not assigned

14.5 Environmental hazards not assigned

14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

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Information for each of the UN Model Regulations

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) - Additional information

not assigned

International Maritime Dangerous Goods Code (IMDG) - Additional information

not assigned

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

not assigned

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)

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

Water Framework Directive (WFD)

none of the ingredients are listed

Regulation on detergents

Labelling of contents	
Constituents	Weight % content (or range)
non-ionic surfactants	less than 5 %
perfumes	

Regulation on persistent organic pollutants (POP)

None of the ingredients are listed.

National inventories

Country	Inventory	Status
EU	REACH Reg.	not all ingredients are listed

Legend

REACH Reg. REACH registered substances

15.2 Chemical safety assessment

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

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SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2000/39/EC	Commission Directive establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC
Acute Tox.	Acute toxicity
ADR	Accord relatif au transport international des marchandises dangereuses par route (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
Asp. Tox.	Aspiration hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
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
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
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
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008

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Abbr.	Descriptions of used abbreviations
IOELV	Indicative occupational exposure limit value
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
log KOW	n-Octanol/water
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
Skin Sens.	Skin sensitisation
STEL	Short-term exposure limit
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). 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 section 2 and 3)

Code	Text
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

NITOSHINE

Version number: GHS 4.0
Replaces version of: 2023-02-09 (GHS 3)

Revision: 2023-07-06

Code	Text
H332	Harmful if inhaled.
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.