



# SAFETY DATA SHEET

Nutrition & Biosciences (Switzerland)  
GmbH

Safety Data Sheet according to Reg. (EU) No 2015/830

**Product name:** NEOLONE™ M-10 Industrial Microbiocide

**Revision Date:** 30.04.2020

**Version:** 9.0

**Date of last issue:** 17.04.2020

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Nutrition & Biosciences (Switzerland) GmbH encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

**Product name:** NEOLONE™ M-10 Industrial Microbiocide

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

**Identified uses:** Biocidal product

### 1.3 Details of the supplier of the safety data sheet

#### COMPANY IDENTIFICATION

Nutrition & Biosciences (Switzerland)  
GmbH  
Wolleraustrasse 15-17  
8807 FREIENBACH  
SWITZERLAND

#### Customer Information Number:

+45 8943 5000

SDS.ENABLERS@iff.com

### 1.4 EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** +(41)- 435082011

**Local Emergency Contact:** +(44)-870-8200418

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008:

Acute toxicity - Category 4 - Oral - H302

Acute toxicity - Category 4 - Inhalation - H332

Skin corrosion - Category 1 - H314

Serious eye damage - Category 1 - H318

Skin sensitisation - Category 1 - H317

Short-term (acute) aquatic hazard - Category 1 - H400

Long-term (chronic) aquatic hazard - Category 2 - H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 2.2 Label elements

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

### Hazard pictograms



Signal word: **DANGER**

### Hazard statements

- H302 + H332 Harmful if swallowed or if inhaled.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H410 Very 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.  
P303 + P361 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with  
+ P353 water.  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
+ P310 Immediately call a POISON CENTER/doctor.  
P305 + P351 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,  
+ P338 + if present and easy to do. Continue rinsing. Immediately call a POISON  
P310 CENTER/doctor.  
P391 Collect spillage.

### Supplemental information

- EUH071 Corrosive to the respiratory tract.

**Contains** 2-methylisothiazol-3(2H)-one

## 2.3 Other hazards

No data available

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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**Chemical nature:** Organic Mixture Aqueous

### 3.2 Mixtures

This product is a mixture.

CASRN / EC-No. / Index-No.	REACH Registration Number	Concentration	Component	Classification: REGULATION (EC) No 1272/2008
<b>CASRN</b> 2682-20-4 <b>EC-No.</b> 220-239-6 <b>Index-No.</b> 613-326-00-9	01-2120764690-50	>= 5.0 - < 10.0 %	2-methylisothiazol- 3(2H)-one	Acute Tox. - 3 - H301 Acute Tox. - 2 - H330 Acute Tox. - 3 - H311 Skin Corr. - 1B - H314 Eye Dam. - 1 - H318 Skin Sens. - 1A - H317 Aquatic Acute - 1 - H400 Aquatic Chronic - 1 - H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

**Inhalation:** Move to fresh air. Give artificial respiration if breathing has stopped. If symptoms persist, call a physician.

**Skin contact:** IMMEDIATELY get under a safety shower. Remove contaminated clothing. Wash off with soap and water. Immediate medical attention is required. Wash contaminated clothing before re-use. Do not take clothing home to be laundered. Discard contaminated shoes, belts, and other articles made of leather.

**Eye contact:** Rinse immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

**Ingestion:** Drink 1 or 2 glasses of water. IMMEDIATELY see a physician. Never give anything by mouth to an unconscious person.

### 4.2 Most important symptoms and effects, both acute and delayed:

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

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

**Notes to physician:** MATERIAL IS CORROSIVE. It may not be advisable to induce vomiting. Possible mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock and convulsions maybe necessary.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media

**Suitable extinguishing media:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable extinguishing media:** No data available

**5.2 Special hazards arising from the substance or mixture****Hazardous combustion products:** No data available**Unusual Fire and Explosion Hazards:** Combustion generates toxic fumes of the following: Nitrogen oxides (NOx) sulfur oxides**5.3 Advice for firefighters****Fire Fighting Procedures:** Cool containers/tanks with water spray. Minimize exposure. Do not breathe fumes. Contain run-off.**Special protective equipment for firefighters:** Wear self-contained breathing apparatus and protective suit.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**6.1 Personal precautions, protective equipment and emergency procedures:** Wear a CEN approved (or equivalent) respirator (with organic vapor/acid gas cartridge and a dust/mist filter) during spill clean-ups and deactivation of this material. MATERIAL IS A SEVERE IRRITANT. If exposed to material during clean-up operations, IMMEDIATELY remove all contaminated clothing and wash exposed skin areas with soap and water.**6.2 Environmental precautions:** Do not allow material to contaminate ground water system. Prevent product from entering drains.**6.3 Methods and materials for containment and cleaning up:** WARNING: KEEP SPILLS AND CLEAN-UP RESIDUALS OUT OF MUNICIPAL SEWERS AND OPEN BODIES OF WATER. Adsorb the spill with spill pillows or inert solids such as clay or vermiculite, and transfer contaminated materials to suitable containers for disposal. Deactivate spill area with freshly prepared solution of 5% sodium bicarbonate and 5% sodium hypochlorite in water. Apply solution to the spill area at a ratio of 10 volumes deactivation solution per estimated volume of residual spill to deactivate any residual active ingredient. Let stand for 30 minutes. Flush the spill area with copious amounts of water to chemical sewer (if in accordance with local procedures, permits and regulations). DO NOT add deactivation solution to the waste pail to deactivate the adsorbed material. See Section 13, "Disposal Considerations", for information regarding the disposal of contained materials.**6.4 Reference to other sections:** References to other sections, if applicable, have been provided in the previous sub-sections.

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**SECTION 7: HANDLING AND STORAGE**

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**7.1 Precautions for safe handling:** This material is a severe irritant. For personal protection see section 8. Do not handle material near food, feed or drinking water.**7.2 Conditions for safe storage, including any incompatibilities:** Keep in a well-ventilated place. Do not store this material near food, feed or drinking water. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all (M)SDS and label warnings even after container is emptied. Expiration date based only on retention of >95% actives during storage at 20°C-25°C (68°F-77°F).

**Storage stability****Storage temperature:** 1 - 55 °C**7.3 Specific end use(s):** See the technical data sheet on this product for further information.

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**8.1 Control parameters**

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Component	Regulation	Type of listing	Value
2-methylisothiazol-3(2H)-one	Dow IHG	TWA	1.5 mg/m3
	Dow IHG	STEL	4.5 mg/m3

**8.2 Exposure controls**

**Engineering controls:** Use local exhaust ventilation with a minimum capture velocity of 150 ft/min. (0.75 m/sec.) at the point of dust or mist evolution. Refer to the current edition of "Industrial Ventilation: A Manual of Recommended Practice" published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

**Protective measures:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**Individual protection measures**

**Eye/face protection:** Eye protection: Use chemical splash goggles and face shield (EN166). Eye protection worn must be compatible with respiratory protection system employed. Use chemical splash goggles and face shield (EN166).

**Skin protection**

**Hand protection:** Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. Glove thickness alone is not a good indicator of the level of protection a glove provides against a chemical substance as this level of protection is also highly dependent on the specific composition of the material that the glove is fabricated from. The thickness of the glove must, depending on model and type of material, generally be more than 0.35 mm to offer sufficient protection for prolonged and frequent contact with the substance. As an exception to this general rule it is known that multilayer laminate gloves may offer prolonged protection at thicknesses less than 0.35 mm. Other glove materials with a thickness of less than 0.35 mm may offer sufficient protection when only brief contact is expected. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Wear as appropriate: Chemical resistant apron complete suit protecting against chemicals

**Respiratory protection:** Typical use of this material does not result in workplace exposures that exceed the exposure limits listed in the Exposure Limit Information Section. For those special workplace conditions where the listed exposure limits are exceeded, a respiratory protection program meeting the requirements of Directive 89/686/EEC and EN133 and 134 standards requirements must be followed. For concentrations up to 10 times the exposure limit, wear a properly fitted CEN approved (or equivalent) half-mask (EN140), or full facepiece air-purifying respirator (EN 136) equipped with CEN approved (or equivalent) organic vapor cartridges (EN 14387), and particle filters (EN143). If oil mist is present, combine with particle (EN143) FFP3 filters. For those unlikely situations where exposure may greatly exceed the listed exposure limits (i.e. greater than 10-fold), or in any emergency situation, wear a properly fitted CEN approved (or equivalent) self-contained breathing apparatus in the pressure demand mode or a full facepiece airline respirator in the pressure demand mode with emergency escape provision. See SECTION 6, Accidental Release Measures, for respirator and protective clothing requirements for spill clean-up and decontamination of this material.

**Environmental exposure controls**

See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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**9.1 Information on basic physical and chemical properties****Appearance**

<b>Physical state</b>	liquid
<b>Color</b>	clear
<b>Odor</b>	Mild odor
<b>Odor Threshold</b>	No data available
<b>pH</b>	3.0 - 6.0
<b>Melting point/range</b>	-20 - -15 °C Solidifies
<b>Freezing point</b>	No data available
<b>Boiling point (760 mmHg)</b>	100.00 °C
<b>Flash point</b>	No data available
<b>Evaporation Rate (Butyl Acetate = 1)</b>	No data available
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Lower explosion limit</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Relative Vapor Density (air = 1)</b>	No data available
<b>Relative Density (water = 1)</b>	1.00 - 1.04 at 20.00 °C
<b>Water solubility</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	log Pow: -0.486 <i>Method Not Specified.</i>
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Dynamic Viscosity</b>	No data available
<b>Kinematic Viscosity</b>	No data available

**Explosive properties** No data available

**Oxidizing properties** No data available

## 9.2 Other information

**Molecular weight** 149.50 g/mol

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## SECTION 10: STABILITY AND REACTIVITY

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**10.1 Reactivity:** No data available

**10.2 Chemical stability:** No data available

**10.3 Possibility of hazardous reactions:** Stable under recommended storage conditions.  
Product will not undergo polymerization.

**10.4 Conditions to avoid:** No data available

**10.5 Incompatible materials:** Avoid contact with the following: Oxidizing agents Amines Reducing agents Mercaptans.

**10.6 Hazardous decomposition products:** Nitrogen oxides (NO<sub>x</sub>) Sulphur oxides hydrogen chloride

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## SECTION 11: TOXICOLOGICAL INFORMATION

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*Toxicological information appears in this section when such data is available.*

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Acute oral toxicity

LD50, Rat, female, 1,091 mg/kg

LD50, Rat, male, 2,834 mg/kg

##### Acute dermal toxicity

LD50, Rabbit, > 5,000 mg/kg

##### Acute inhalation toxicity

Product test data not available. Refer to component data.

#### Skin corrosion/irritation

Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

#### Serious eye damage/eye irritation

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

**Sensitization**

Causes sensitisation.

For respiratory sensitization:

No relevant data found.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Product test data not available. Refer to component data.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Product test data not available. Refer to component data.

**Carcinogenicity**

Did not show carcinogenic effects in animal experiments.

**Teratogenicity**

Did not show teratogenic effects in animal experiments.

**Reproductive toxicity**

Product test data not available. Refer to component data.

**Mutagenicity**

Non-mutagenic

**Aspiration Hazard**

Product test data not available. Refer to component data.

**COMPONENTS INFLUENCING TOXICOLOGY:**

**2-methylisothiazol-3(2H)-one**

**Acute inhalation toxicity**

LC50, Rat, 4 Hour, dust/mist, 0.11 mg/l

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Material is corrosive. Material is not classified as a respiratory irritant; however, upper respiratory tract irritation or corrosivity may be expected.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

**Reproductive toxicity**

In animal studies, did not interfere with reproduction.

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.



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## SECTION 12: ECOLOGICAL INFORMATION

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*Ecotoxicological information appears in this section when such data is available.*

### 12.1 Toxicity

#### 2-methylisothiazol-3(2H)-one

##### **Acute toxicity to fish**

Material is very toxic to aquatic organisms (LC50/EC50/IC50 below 1 mg/L in the most sensitive species).

LC50, *Oncorhynchus mykiss* (rainbow trout), 96 Hour, 4.77 mg/l, OECD Test Guideline 203 or Equivalent

##### **Acute toxicity to aquatic invertebrates**

LC50, *Daphnia magna* (Water flea), 48 Hour, 0.934 mg/l

##### **Acute toxicity to algae/aquatic plants**

EC50, algae, 72 Hour, Growth rate, > 0.0725 mg/l, OECD Test Guideline 201

NOEC, *Pseudokirchneriella subcapitata* (green algae), 72 Hour, 0.05 mg/l, OECD Test Guideline 201

##### **Chronic toxicity to fish**

NOEC, *Pimephales promelas* (fathead minnow), 33 d, 2.1 mg/l

##### **Chronic toxicity to aquatic invertebrates**

NOEC, *Daphnia magna*, 21 d, 0.04 mg/l

### 12.2 Persistence and degradability

#### 2-methylisothiazol-3(2H)-one

**Biodegradability:** Material is expected to be readily biodegradable.

**Biodegradation:** 98 %

**Exposure time:** 48 d

**Method:** Simulation study

Considered to be rapidly degradable.

### 12.3 Bioaccumulative potential

**Partition coefficient: n-octanol/water(log Pow):** -0.486 at 24 °C Method Not Specified.

### 12.4 Mobility in soil

#### 2-methylisothiazol-3(2H)-one

No relevant data found.

### 12.5 Results of PBT and vPvB assessment

#### 2-methylisothiazol-3(2H)-one

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

### 12.6 Other adverse effects

**2-methylisothiazol-3(2H)-one**

This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

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**SECTION 13: DISPOSAL CONSIDERATIONS**

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**13.1 Waste treatment methods**

Incinerate liquid and contaminated solids in accordance with local, state, and federal regulations.

The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact the authorized waste disposal services.

**Contaminated packaging:** Empty containers retain product residues. Follow label warnings even after container is emptied. Improper disposal or reuse of this container may be dangerous and illegal. Refer to applicable federal, state and local regulations.

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**SECTION 14: TRANSPORT INFORMATION**

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**Classification for ROAD and Rail transport (ADR/RID):**

14.1 UN number	UN 3265
14.2 UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(2-Methyl-4-isothiazolin-3-one)
14.3 Transport hazard class(es)	8
14.4 Packing group	II
14.5 Environmental hazards	2-Methyl-4-isothiazolin-3-one
14.6 Special precautions for user	Hazard Identification Number: 80

**Classification for SEA transport (IMO-IMDG):**

14.1 UN number	UN 3265
14.2 UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(2-Methyl-4-isothiazolin-3-one)
14.3 Transport hazard class(es)	8
14.4 Packing group	II
14.5 Environmental hazards	2-Methyl-4-isothiazolin-3-one
14.6 Special precautions for user	EmS: F-A, S-B
14.7 Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

**Classification for AIR transport (IATA/ICAO):**

14.1 UN number	UN 3265
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<b>14.2 UN proper shipping name</b>	Corrosive liquid, acidic, organic, n.o.s.(2-Methyl-4-isothiazolin-3-one)
<b>14.3 Transport hazard class(es)</b>	8
<b>14.4 Packing group</b>	II
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special precautions for user</b>	No data available.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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## SECTION 15: REGULATORY INFORMATION

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

#### REACH Regulation (EC) No 1907/2006

This product contains only components that have been either pre-registered, registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No. 1907/2006 (REACH). The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer's/user's responsibility to ensure that his/her understanding of the regulatory status of this product is correct.

#### Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Listed in Regulation: ENVIRONMENTAL HAZARDS

Number in Regulation: E1

100 t

200 t

#### Further information

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

#### 15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture.

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**SECTION 16: OTHER INFORMATION**

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**Full text of H-Statements referred to under sections 2 and 3.**

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
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.

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008**

Acute Tox. - 4 - H302 - Based on product data or assessment

Acute Tox. - 4 - H332 - Calculation method

Skin Corr. - 1 - H314 - Based on product data or assessment

Eye Dam. - 1 - H318 - Based on product data or assessment

Skin Sens. - 1 - H317 - Calculation method

Aquatic Acute - 1 - H400 - Calculation method

Aquatic Chronic - 2 - H411 - Calculation method

**Revision**

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Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

**Legend**

Dow IHG	Dow Industrial Hygiene Guideline
STEL	Short term exposure limit
TWA	Time weighted average
Acute Tox.	Acute toxicity
Aquatic Acute	Short-term (acute) aquatic hazard
Aquatic Chronic	Long-term (chronic) aquatic hazard
Eye Dam.	Serious eye damage
Skin Corr.	Skin corrosion
Skin Sens.	Skin sensitisation

**Full text of other abbreviations**

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS -

Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

#### Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

Nutrition & Biosciences (Switzerland) GmbH urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

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