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	Safety Data Sheet	
	According to Annex II to REACH - Regulation 201	15/830
SECTION 1. Identification	of the substance/mixture and of the cor	mpany/undertaking
		n bany/anaonaning
1.1. Product identifier		
Code: Product name	NanoPhos_GA_030920-007 SurfaShield MBC	
Tioudel name		
1.2 Relevant identified uses of the	substance or mixture and uses advised against	
	catalytic surface protection coating and disimfectant	
1.3. Details of the supplier of the sa		
Name	NANOPHOS S.A. Technological & Cultural Park	
	19 500 Lavrio (Greece)	
	Greece	
	Greece Tel. +30 22920 69312	
District and Country	Greece Tel. +30 22920 69312 Fax +30 22920 69303	
e-mail address of the competent pers	Greece Tel. +30 22920 69312 Fax +30 22920 69303 on	
e-mail address of the competent personsible for the Safety Data Sheet	Greece Tel. +30 22920 69312 Fax +30 22920 69303 on iarabatz@NanoPhos.com	
e-mail address of the competent personal	Greece Tel. +30 22920 69312 Fax +30 22920 69303 on	
e-mail address of the competent personsponsible for the Safety Data Sheet	Greece Tel. +30 22920 69312 Fax +30 22920 69303 on iarabatz@NanoPhos.com	

# **SECTION 2. Hazards identification**

#### 2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:		
Flammable liquid, category 3	H226	Flammable liquid and vapour.
Eye irritation, category 2	H319	Causes serious eye irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.

### 2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

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<b>^</b>	<b>^</b>	
< 😗 > <		
Signal words:	Warning	
azard statements:		
H226	Flammable liquid and vapour.	
H319	Causes serious eye irritation.	
H336	May cause drowsiness or dizziness.	
recautionary statement	S:	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition source	es. No smoking.
P280	Wear protective gloves or protective clothing and eye or face protection.	
P370+P378 P242	In case of fire: use dry powder or Carbon Dioxide (CO <sub>2</sub> ) fire extinguisher to exting Use non-sparking tools.	uish.
P403+P235	Store in a well-ventilated place. Keep cool.	
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin v	vith water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	
P264	Wash with plenty of water thoroughly after handling.	
P261 P312	Avoid breathing vapours or spray. Call a POISON CENTRE or a doctor if you feel unwell.	
P403+P233	Store in a well-ventilated place. Keep container tightly closed.	
	Use only outdoors or in a well-ventilated area.	
P271	If medical advice is needed, have product container or label at hand.	
P271 P101		
P101 P102	Keep out of reach of children.	
		ations.

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Com	position/informa	tion on ing	gredients
----------------	------------------	-------------	-----------

3.2. Mixtures		
Contains:		
Identification	x = Conc. %	Classification 1272/2008 (CLP)
PROPAN-2-OL		
CAS 67-63-0	20 < x < 30	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336
EC 200-661-7		
INDEX 603-117-00-0		
ETHYL SILICATE		
CAS 78-10-4	0 < x < 5	Flam. Liq. 3 H226, Acute Tox. 4 H332, Eye Irrit. 2 H319, STOT SE 3 H335

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EC 201-083-8 INDEX 014-005-00-0

#### AMMONIA

CAS 1336-21-6

0 < x < 5

Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Aquatic Acute 1 H400 M=1, Classification note according to Annex VI to the CLP Regulation: B

EC 215-647-6 INDEX 007-001-01-2

The full wording of hazard (H) phrases is given in section 16 of the sheet.

# **SECTION 4. First aid measures**

#### 4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

## **SECTION 5. Firefighting measures**

#### 5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak. UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

## 5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

## 5.3. Advice for firefighters

## GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

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SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

## **SECTION 6. Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

#### 6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

#### 6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

#### 6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

## **SECTION 7. Handling and storage**

#### 7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

#### 7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

#### 7.3. Specific end use(s)

Information not available

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# **SECTION 8. Exposure controls/personal protection**

#### 8.1. Control parameters

Regulatory References: FRA Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS France GBR United Kingdom EH40/2005 Workplace exposure limits (Third edition, published 2018) GRC Ελλάδα ΕΦΗΜΕΡΙ A ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ - ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 152 - 21 Αυγούστου 2018 Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC. FU OEL EU TLV-ACGIH ACGIH 2019 PROPAN-2-OL TWA/8h STEL/15min Туре Country Remarks / Observations mg/m3 ppm mg/m3 ppm VLEP FRA 980 400 WEL GBR 999 400 1250 500 TI V GRC 980 400 1225 500 492 200 983 400 TLV-ACGIH ETHYL SILICATE TWA/8h Type Country STEL/15min Remarks / Observations mg/m3 ppm mg/m3 ppm VLEP 85 FRA 10 WFI GBR 5 44 TLV GRC 44 5 OEL EU 44 5 TLV-ACGIH 85 10 Predicted no-effect concentration - PNEC Normal value in fresh water 0.192 mg/l Normal value in marine water 0,0192 mg/l Normal value for fresh water sediment 0,18 mg/kg Normal value for marine water sediment 0,018 mg/kg Normal value of STP microorganisms 4000 mg/l Effects on Effects on workers consumers Route of exposure Acute local Acute systemic Chronic local Chronic Acute local Acute Chronic local Chronic systemic systemic systemic 25 mg/m3 Inhalation 25 mg/m3 25 mg/m3 25 mg/m3 85 mg/m3 85 mg/m3 85 mg/m3 85 mg/m3 Skin 8.4 mg/kg bw/d 8.4 mg/kg 12,1 mg/kg 12,1 mg/kg bw/d bw/d bw/d

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#### AMMONIA

Threshold Limit Val	ue						
Туре	Country	TWA/8h		STEL/15min		Remarks / Observations	
		1.0		1.0		0000110110	
		mg/m3	ppm	mg/m3	ppm		
OEL	EU	14	20	36	50		
TLV-ACGIH		17	25	24	35		

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

### 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

#### HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

#### SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

#### EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

#### ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

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# **SECTION 9. Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Appearance	liquid
Colour	milky
Odour	characteristic
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	> 35 °C
Boiling range	Not available
Flash point	23 < T < 60 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	Not available
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

## 9.2. Other information

Information not available

# SECTION 10. Stability and reactivity

## 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

## AMMONIA

Corrodes: aluminium, iron, zinc, copper, copper alloys.

## 10.2. Chemical stability

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The product is stable in normal conditions of use and storage.

### 10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

### AMMONIA

Risk of explosion on contact with: strong acids, iodine. May react dangerously with: strong bases.

#### 10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

### 10.5. Incompatible materials

### AMMONIA

Incompatible with: silver, silver salts, lead, lead salts, zinc, zinc salts, hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane, acrylic acid.

#### 10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

AMMONIA

May develop: nitric oxide.

## **SECTION 11. Toxicological information**

## 11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

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Information not available

## ACUTE TOXICITY

LC50 (Inhalation) of the mixture: > 20 mg/l LD50 (Oral) of the mixture: Not classified (no significant component) LD50 (Dermal) of the mixture: Not classified (no significant component)

### AMMONIA

LD50 (Oral) 350 mg/kg Rat

ETHYL SILICATE

LD50 (Oral) 2,5 mg/kg

LD50 (Dermal) 5878 mg/kg RABBIT

LC50 (Inhalation) 11 mg/l/4h

PROPAN-2-OL

LD50 (Oral) 4710 mg/kg Rat

LD50 (Dermal) 12800 mg/kg Rat

LC50 (Inhalation) 72,6 mg/l/4h Rat

#### **SKIN CORROSION / IRRITATION**

Does not meet the classification criteria for this hazard class

### SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

### RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

#### CARCINOGENICITY

Does not meet the classification criteria for this hazard class

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## REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

#### STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

# **SECTION 12. Ecological information**

### 12.1. Toxicity

AMMONIA
LC50 - for Fish
EC50 - for Crustacea

ETHYL SILICATE LC50 - for Fish EC50 - for Crustacea EC50 - for Algae / Aquatic Plants

#### 12.2. Persistence and degradability

AMMONIA
Degradability: information not available

ETHYL SILICATE Solubility in water

1000 - 10000 mg/l

> 245 mg/l/96h

> 75 mg/l/48h

> 100 mg/l/72h

47 mg/l/96h Channa punctata 20 mg/l/48h Daphnia magna

PROPAN-2-OL Rapidly degradable

Rapidly degradable

#### 12.3. Bioaccumulative potential

ETHYL SILICATE	
Partition coefficient: n-octanol/water	3,18
BCF	3,16

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PROPAN-2-OL

Partition coefficient: n-octanol/water

0,05

## 12.4. Mobility in soil

Information not available

### 12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

#### 12.6. Other adverse effects

Information not available

# **SECTION 13. Disposal considerations**

### 13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

## **SECTION 14. Transport information**

#### 14.1. UN number

ADR / RID, IMDG, 1993 IATA:

### 14.2. UN proper shipping name

ADR / RID:	FLAMMABLE LIQUID, N.O.S. (PROPAN-2-OL; ETHYL SILICATE)
IMDG:	FLAMMABLE LIQUID, N.O.S. (PROPAN-2-OL; ETHYL SILICATE)
IATA:	FLAMMABLE LIQUID, N.O.S. (PROPAN-2-OL; ETHYL SILICATE)

### 14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3
IMDG:	Class: 3	Label: 3
IATA:	Class: 3	Label: 3



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#### 14.4. Packing group

ADR / RID, IMDG, III IATA:

#### 14.5. Environmental hazards

ADR / RID:	NO
IMDG:	NO
IATA:	NO

### 14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 30 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, <u>S-E</u>	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 220 L	Packaging instructions: 366
	Pass.:	Maximum quantity: 60 L	Packaging instructions: 355
	Special Instructions:	A3	

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

# SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EC: P5c

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product Point

3 - 40

## Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

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None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

#### 15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

## **SECTION 16. Other information**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Eye Irrit. 2	Eye irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road

- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization

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- INDEX NUMBER: Identifier in Annex VI of CLP

- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

#### GENERAL BIBLIOGRAPHY

- 1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
- 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
- 4. Regulation (EU) 2015/830 of the European Parliament
- 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
- 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
- 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
- 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
- 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EÚ) 2015/1221 (VII Atp. CLP) of the European Parliament 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
- 12. Regulation (EU) 2016/918 (VIII Atp. CLP) ( 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
- 13. Regulation (EU) 2017/776 (X Atp. CLP)
- 14. Regulation (EU) 2018/669 (XI Atp. CLP)
- 15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
- 16. Regulation (EU) 2019/521 (XII Atp. CLP)
- The Merck Index. 10th Edition
- Handling Chemical Safety
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website

- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses. Provide appointed staff with adequate training on how to use chemical products.

Product's classification is based on the calculation methods set out in Annex I of the CLP Regulation, unless otherwise indicated in sections 11 and 12. The data for evaluation of chemical-physical properties are reported in section 9.

Changes to previous review:

The following sections were modified: 02 / 11 / 12.

02/11/12

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