

Safety Data Sheet dated 24/11/2023, version 5

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

1.1. Product identifier

Mixture identification:

Trade name: **DRY RUGGINE**Trade code: G01-025 / 026

UFI: JRH1-C0AQ-H008-F8D3

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

Recommended use:

Liquid stain remover for fabrics.

For professional use.

Products categories: PC35 - washing and cleaning products. This category includes water and solvent based products.

Use at industrial sites (IS). Widespread use by professional workers (PW).

Uses advised against:

Do not use for purposes other than those indicated.

1.3. Details of the supplier of the safety data sheet

Company:

G.B.M. ELETTROCHIMICA s.r.l.

Via Fiumicino San Mauro, 120/130 - 47039 – Savignano Sul Rubicone (FC) Italy tel +39 0541 930058

e-mail: <a href="mailto:gbm@gbmprodottichimici.it">gbm@gbmprodottichimici.it</a> web site: <a href="mailto:www.gbmprodottichimici.it">www.gbmprodottichimici.it</a>

1.4. Emergency telephone number

+39 0541-930058

### **SECTION 2: Hazards identification**

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

Met. Corr. 1, H290 May be corrosive to metals.

Skin Corr. 1A, H314 Causes severe skin burns and eye damage.

Eye Dam. 1, H318 Causes serious eye damage.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

Precautionary statements:

P280 Wear protective gloves and eye/face protection.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.



P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 In case of malaise, contact a POISON CENTRE/doctor.

P390 Absorb spillage to prevent material damage.

P501 Dispose of contents/container in accordance with applicable regulations.

**Special Provisions:** 

None

Contains

phosphoric acid ... %, orthophosphoric acid ... %

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

# 2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1% Other Hazards:

No other hazards

# **SECTION 3: Composition/information on ingredients**

3.1. Substances

N.A.

3.2. Mixtures

Ingredients according to EC Detergents Regulation 648/2004:

<5%: non-ionic surfactants.

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb	er	Classification
>= 10% - < 20%	phosphoric acid %, orthophosphoric acid %	Index number: CAS: EC: REACH No.:	015-011-00-6 7664-38-2 231-633-2 01- 2119485924- 24-XXXX	3.1/4/Oral Acute Tox. 4 H302 3.2/1B Skin Corr. 1B H314 2.16/1 Met. Corr. 1 H290 Specific Concentration Limits: C >= 25%: Skin Corr. 1B H314 10% <= C < 25%: Skin Irrit. 2 H315 10% <= C < 25%: Eye Irrit. 2 H319
>= 1% - < 5%	2-butoxyethanol; ethylene glycol monobutyl ether	Index number: CAS: EC: REACH No.:	603-014-00-0 111-76-2 203-905-0 01- 2119475108- 36-0005	3.1/3/Inhal Acute Tox. 3 H331 3.1/4/Oral Acute Tox. 4 H302 3.2/2 Skin Irrit. 2 H315 3.3/2 Eye Irrit. 2 H319 Acute Toxicity Estimate: ATE - Oral 1200 mg/kg bw ATE - Inhalation (Vapours) 3 mg/l



# **SECTION 4: First aid measures**

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do NOT induce vomiting.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

# **SECTION 5: Firefighting measures**

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

### **SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections



See also section 8 and 13

# **SECTION 7: Handling and storage**

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

Store the product only in its original closed containers, in a cool, dry and well-ventilated areas at temperatures below 0 °C and not higher than 40 °C.

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

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

8.1. Control parameters

phosphoric acid ... %, orthophosphoric acid ... % - CAS: 7664-38-2

UE - TWA(8h): 1 mg/m3 - STEL: 2 mg/m3

ACGIH - TWA(8h): 1 mg/m3 - STEL: 3 mg/m3 - Notes: N.A.

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

EC - TWA(8h): 98 mg/m3, 20 ppm - STEL: 246 mg/m3, 50 ppm - Notes: Skin

**DNEL Exposure Limit Values** 

phosphoric acid ... %, orthophosphoric acid ... % - CAS: 7664-38-2

Worker Professional: 2 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term,

local effects - Notes: ECHA

Worker Professional: 1 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term,

local effects - Endpoint: Repeated dose toxicity - Notes: ECHA

Consumer: 0.36 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local

effects - Endpoint: Corrosion/skin irritation - Notes: ECHA

Consumer: 4.57 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term,

systemic effects - Endpoint: Repeated dose toxicity - Notes: ECHA

Consumer: 0.1 mg/kg b.w./day - Exposure: Human Oral - Frequency: Long Term,

systemic effects - Endpoint: Repeated dose toxicity - Notes: ECHA

Worker Professional: 10.7 mg/m3 - Exposure: Human Inhalation - Frequency: Long

Term, systemic effects - Endpoint: Repeated dose toxicity - Notes: ECHA

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

Worker Professional: 246 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, local effects - Endpoint: Irritation (respiratory tract)

Consumer: 6.3 mg/kg b.w./day - Exposure: Human Oral - Frequency: Long Term, systemic effects - Endpoint: Repeated dose toxicity

Consumer: 147 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, local effects - Endpoint: Irritation (respiratory tract)

Consumer: 59 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Endpoint: Repeated dose toxicity



Worker Professional: 1091 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, systemic effects - Endpoint: Acute toxicity

Consumer: 426 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term,

systemic effects - Endpoint: Acute toxicity

Worker Professional: 98 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term,

systemic effects - Endpoint: Repeated dose toxicity

Consumer: 26.7 mg/kg b.w./day - Exposure: Human Oral - Frequency: Short Term, systemic effects - Endpoint: Acute toxicity

# PNEC Exposure Limit Values

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

Target: Fresh Water - Value: 8.8 mg/l - Type of hazard: Danger to aquatic organisms Target: Marine water - Value: 0.88 mg/l - Type of hazard: Danger to aquatic organisms Target: Freshwater sediments - Value: 34.6 mg/kg dry weight - Type of hazard: Danger to aquatic organisms

Target: Marine water sediments - Value: 3.46 mg/kg dry weight - Type of hazard:

Danger to aquatic organisms

Target: Intermittent release - Value: 26.4 mg/l - Type of hazard: Danger to aquatic organisms

Target: Sewage treatment plant - Value: 463 mg/l - Type of hazard: Danger to aquatic organisms

Target: Secondary poisoning - Value: 20 mg/kg - Type of hazard: Hazard for predators Target: Soil - Value: 2.33 mg/kg dry weight - Type of hazard: Danger to terrestrial organisms

### 8.2. Exposure controls

Eye protection:

Eye glasses.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

# Protection for hands:

Use protective gloves resistant to chemicals. The choice of hand PPE must be made on the basis of its better resistance to chemical agents, taking into account the results of tests obtained in accordance with EN 374 Because of the great diversity of types, you should follow the instructions of the manufacturers. Suitable materials for short contact (recommended: at least protection index 2, corresponding to> 30 minutes permeation time according to EN 374). Butyl rubber - 0.7 mm thick. Suitable materials for direct and prolonged contact (recommended: protection index 6, corresponding> 460 minutes of permeation time according to EN 374) nitro-caoutchouc (NBR) - 0.4 mm thick.

### Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

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

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes
Physical state:	Liquid		
Colour:	Colourless		
Odour:	CHARACTER		



INCOUNTE			
	ISTIC		
Melting point/freezing	N.A.		
point:			
Boiling point or initial	N.A.		
boiling point and boiling			
range:			
Flammability:	N.A.		
Lower and upper explosion	N.A.		
limit:			
Flash point:	NOT		
	FLAMMABLE/		
	>100 ° C		
Auto-ignition temperature:	NOT AUTO-		
	FLAMMABLE		
Decomposition	N.A.		
temperature:			
pH:	1,5		
Kinematic viscosity:	N.A.		
Solubility in water:	COMPLETE		
Solubility in oil:	INSOLUBLE		
Partition coefficient n-	N.A.		
octanol/water (log value):			
Vapour pressure:	N.A.		
Density and/or relative	1.07 ± 0.05		
density:	kg/l		
Relative vapour density:	N.A.		
	Particle cha	racteristics:	· ·

Particle size:	N.A.	 

# 9.2. Other information

Properties	Value	Method:	Notes
Explosive properties:	ABSENT	-	1
Miscibility:	MISCIBLE		-
Oxidizing properties:	ABSENT		-

# **SECTION 10: Stability and reactivity**

10.1. Reactivity

Acidic product: reacts with alkaline substances.

10.2. Chemical stability

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

- 10.3. Possibility of hazardous reactions
- 10.4. Conditions to avoid

Avoid contact with alkaline and / or oxidizing substances.

10.5. Incompatible materials

Avoid contact with strong oxidizing and reducing agents, strong acids and bases

10.6. Hazardous decomposition products

Under normal conditions of storage and use, are not known hazardous decomposition products.



# **SECTION 11: Toxicological information**

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 Toxicological information of the product:

**DRY RUGGINE** 

a) acute toxicity

Not classified

No data available for the product

b) skin corrosion/irritation

The product is classified: Skin Corr. 1A H314

c) serious eye damage/irritation

The product is classified: Eye Dam. 1 H318

d) respiratory or skin sensitisation

Not classified

No data available for the product

e) germ cell mutagenicity

Not classified

No data available for the product

f) carcinogenicity

Not classified

No data available for the product

g) reproductive toxicity

Not classified

No data available for the product

h) STOT-single exposure

Not classified

No data available for the product

i) STOT-repeated exposure

Not classified

No data available for the product

j) aspiration hazard

Not classified

No data available for the product

Toxicological information of the main substances found in the product:

phosphoric acid ... %, orthophosphoric acid ... % - CAS: 7664-38-2

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 300-2000 mg/kg bw - Source: SDS

b) skin corrosion/irritation:

Test: Skin Corrosive Yes - Source: SDS - Causes severe skin burns

c) serious eye damage/irritation:

Test: Eye Corrosive Yes - Source: SDS - Causes serious eye damage

g) reproductive toxicity:

Test: Development - Route: Oral - Species: Mouse = 370 mg/kg di b.w./day - Source: ECHA - No observed adverse effects

i) STOT-repeated exposure:

Test: LOAEL - Route: Oral - Species: Rat = 155 mg/kg di b.w./day - Source: ECHA - Notes: Subchronic toxicity - Adverse effects observed

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

a) acute toxicity

ATE - Oral 1200 mg/kg bw

ATE - Inhalation (Vapours) 3 mg/l

Test: STA - Route: Oral - Species: Rat = 1200 mg/kg bw Test: STA - Route: Inhalation Vapour - Species: Rat = 3 mg/l

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg bw - Source: OECD TG 402



Test: NOAEL(C) - Route: Oral - Species: Rat (male) 2 69 mg/kg dry weight - Duration:

90d - Source: OECD TG 408 - Notes: Subacute toxicity

Test: NOAEL(C) - Route: Oral - Species: Rat (female) 2 82 mg/kg dry weight - Duration:

90d - Source: OECD TG 408 - Notes: Subacute toxicity

Test: NOAEL(C) - Route: Skin - Species: Rabbit > 150 mg/kg di b.w./day - Duration:

90d - Source: OECD TG 411 - Notes: Subacute toxicity

Test: LOAEL(C) - Route: Inhalation - Species: Rat = 62.5 mg/kg

b) skin corrosion/irritation:

Test: Skin Irritant Positive - Causes skin irritation

c) serious eye damage/irritation:

Test: Eye Irritant Positive - Causes severe eye irritation

d) respiratory or skin sensitisation:

Species: Guinea pig Negative - Based on available data, the classification criteria are not met

e) germ cell mutagenicity:

Test: In vitro genotoxicity Negative

### 11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 0.1%

# **SECTION 12: Ecological information**

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment. DRY RUGGINE

Not classified for environmental hazards

Based on available data, the classification criteria are not met

phosphoric acid ... %, orthophosphoric acid ... % - CAS: 7664-38-2

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Crustaceans > 100 mg/l - Duration h: 48 - Notes: Daphnia magna: OECD TG 202

Endpoint: EC50 - Species: Algae > 100 mg/l - Duration h: 72 - Notes: Desmodesmus subspicatus; static test; OECD TG 201

Endpoint: LC50 - Species: Fish = 138 mg/l - Duration h: 96 - Notes: Mosquitofish

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 1474 mg/l - Duration h: 96 - Notes: Oncorhynchus mykiss

Endpoint: EC50 - Species: Daphnia = 1550 mg/l - Duration h: 48 - Notes: Daphnia magna.

Endpoint: EC50 - Species: Algae = 911 mg/l - Duration h: 72 - Notes:

Pseudokirchneriella subcapitata; OECD TG 201

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Fish > 100 mg/l - Notes: Brachydanio rerio

12.2. Persistence and degradability

None

**DRY RUGGINE** 

Biodegradability: The product contains only readily biodegradable surfactants meet the criteria laid down in Regulation detergents EU (EC/648/2004).

phosphoric acid ... %, orthophosphoric acid ... % - CAS: 7664-38-2

Biodegradability: Not applicable (inorganic substance)

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2



Biodegradability: Readily biodegradable - Duration: 28d - %: 90.4 - Notes: OECD TG 301 B

### 12.3. Bioaccumulative potential

phosphoric acid ... %, orthophosphoric acid ... % - CAS: 7664-38-2

Bioaccumulation: Not bioaccumulative - Notes: This substance is highly soluble and dissociates in water. Phosphoric acid dissociates in water in the H3O+, H2PO4-, HPO4-- ions that are present in the environment. Phosphoric acid is absorbed in the form of phosphate anions. This anion is an essent

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

Bioaccumulation: Low potential for bioaccumulation

### 12.4. Mobility in soil

phosphoric acid ... %, orthophosphoric acid ... % - CAS: 7664-38-2

Mobility in soil: This substance is highly soluble and dissociates in water. - Notes: When scattered on the ground, phosphoric acid will seep down and will be partly neutralized by melting some of the soil materials. When the Earth's plate is reached, the phosphoric acid will disperse and be diluted. Therefore, the environmental asses

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

Mobility in soil: The product has very high mobility potential

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration >= 0.1%

12.7. Other adverse effects

None

# **SECTION 13: Disposal considerations**

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

# **SECTION 14: Transport information**

14.1. UN number or ID number

 ADR-UN number:
 1805

 RID-UN Number:
 1805

 ADN-UN Number:
 1805

 IATA-Un number:
 1805

 IMDG-Un number:
 1805

14.2. UN proper shipping name

ADR-Shipping Name: PHOSPHORIC ACID, SOLUTION PHOSPHORIC ACID, SOLUTION PHOSPHORIC ACID, SOLUTION PHOSPHORIC ACID, SOLUTION PHOSPHORIC ACID, SOLUTION

14.3. Transport hazard class(es)

ADR-Class: 8
ADR-Label: 8
ADR - Hazard identification number: 80

RID-Class: 8
ADN-Class: 8
IATA-Class: 8
IATA-Label: 8
IMDG-Class: 8

14.4. Packing group

RID-Packing Group: III
ADN-Packing Group: III



ADR-Packing Group: III
IATA-Packing group: III
IMDG-Packing group: III
14.5. Environmental hazards

Marine pollutant: No IMDG-EMS: F,A-S,B

ADN-Environmentally hazardous in tank-vessels:

14.6. Special precautions for user

ADR-Transport category (Tunnel restriction code): E

IMDG-Shipping Name: PHOSPHORIC ACID, SOLUTION

14.7. Maritime transport in bulk according to IMO instruments

NΑ

# **SECTION 15: Regulatory information**

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH) Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 2020/878

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP) Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Regulation (EU) n. 2021/643 (ATP 16 CLP)

Regulation (EU) n. 2021/849 (ATP 17 CLP)

Regulation (EU) n. 2022/692 (ATP 18 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restrictions related to the substances contained:

Restriction 75

Where applicable, refer to the following regulatory provisions:

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None



15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

### **SECTION 16: Other information**

Full text of phrases referred to in Section 3:

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H290 May be corrosive to metals.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

Hazard class and hazard category	Code	Description
Met. Corr. 1	2.16/1	Substance or mixture corrosive to metals,
		Category 1
Acute Tox. 3	3.1/3/Inhal	Acute toxicity (inhalation), Category 3
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1A	3.2/1A	Skin corrosion, Category 1A
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Met. Corr. 1, H290	On basis of test data
Skin Corr. 1A, H314	Calculation method
Eye Dam. 1, H318	Calculation method

This document was prepared by a competent person who has received appropriate training. Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of

Dangerous Goods by Road.

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

CAS: Chemical Abstracts Service (division of the American Chemical

Society).

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

10823/5



EINECS: European Inventory of Existing Commercial Chemical Substances.

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of

Chemicals.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport

Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization"

(ICAO).

IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.

KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

PNEC: Predicted No Effect Concentration.

RID: Regulation Concerning the International Transport of Dangerous Goods

by Rail.

STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWA: Time-weighted average
WGK: German Water Hazard Class.