

Safety Data Sheet dated 7/8/2018, version 1

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

1.1. Product identifier

Mixture identification:

Trade name: ROTATARY FINE

Trade code: 9.BRFINE/8 - 9.BRFINE250/6

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

Recommended use:

Abrasive compound for bodywork

Uses advised against:

All not indicated in the suggested uses.

1.3. Details of the supplier of the safety data sheet

Company:

RUPES SPA - Via Marconi 3A, 20080, Vermezzo (MI) - Italy

RUPES SPA - Telefono n°+3902946941

Importer:

Wyatt Machine Tools (Rupes) NZ Limited

388 Church Street, Penrose, Auckland

Ph (09) 525 1000; Fax (09) 525 1009

Competent person responsible for the safety data sheet:

info_rupes@rupes.it

1.4. Emergency telephone number

NZ Emergency 0800 992 881 (0800WYATT1)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:

None

Hazard statements:

None

Precautionary statements:

None

Special Provisions:

EUH066 Repeated exposure may cause skin dryness or cracking.

EUH208 Contains: mixture of 5-cloro-2-metil-2H-isotiazol-3-one [EC no. 247-500-7];

2-metil-2H-isotiazol-3-one [EC no. 220-239-6] (3:1): may produce an allergic reaction.

EUH210 Safety data sheet available on request.

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



None

2.3. Other hazards

vPvB Substances: None PBT Substances: None

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

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

Qty	Name	Ident. Numl	per	Classification
>= 6.99% - < 10%	Hydrocarbons C12-C16, isoalkanes, <2% Aromatics	EC:	927-676-8	3.10/1 Asp. Tox. 1 H304
>= 6.99% - < 10%	hydrocarbons, C10-C12, isoalkanes, <2% aromatic	EC:	923-037-2	 2.6/3 Flam. Liq. 3 H226 3.10/1 Asp. Tox. 1 H304 4.1/C4 Aquatic Chronic 4 H413 EUH066
>= 1% - < 3%	Alluminium oxide	CAS: EC:	1344-28-1 215-691-6	Classification: not defined.
>= 0.5% - < 1%	Triethanolamine	CAS: EC:	102-71-6 203-049-8	Classification: not defined.
<0.01%	2-(2-butoxyethoxy)etha nol; diethylene glycol monobutyl ether	Index number: CAS: EC:	603-096-00-8 112-34-5 203-961-6	3.3/2 Eye Irrit. 2 H319
<0.02%	1-methoxy-2-propanol; monopropylene glycol methyl ether	Index number: CAS: EC:	603-064-00-3 107-98-2 203-539-1	2.6/3 Flam. Liq. 3 H226 3.8/3 STOT SE 3 H336
<0.0015 %	reaction mass of: 5-chloro-2-methyl-4-iso thiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)	Index number: CAS:	613-167-00-5 55965-84-9	3.2/1B Skin Corr. 1B H314 3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317 4.1/A1 Aquatic Acute 1 H400 4.1/C1 Aquatic Chronic 1 H410 3.1/3/Oral Acute Tox. 3 H301



	3.1/3/Dermal Acute Tox. 3
	H311
	♦ 3.1/3/Inhal Acute Tox. 3 H331

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

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

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

ROTARY FINE NEW/1

Page n. 3 of 13



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, inhaltion 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.

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep container closed when not in use. Keep only in the original container in a cool, well ventilated place away from: direct sunlight, heat and ignition sources

Store in a well-ventilated place

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)

Abrasive compound for bodywork

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hydrocarbons C12-C16, isoalkanes, <2% Aromatics

- OEL Type: EU - TWA(8h): 200 mg/m3

hydrocarbons, C10-C12, isoalkanes, <2% aromatic

- OEL Type: ACGIH - TWA(8h): 1200 mg/m3

Alluminium oxide - CAS: 1344-28-1

- OEL Type: ACGIH - TWA(8h): 1 mg/m3

Triethanolamine - CAS: 102-71-6

- OEL Type: ACGIH - TWA(8h): 5 mg/m3 - Notes: ACGIH 2014 irrt cute e oclr

2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether - CAS: 112-34-5

- OEL Type: EU - TWA(8h): 67.5 mg/m3, 10 ppm - STEL: 101.2 mg/m3, 15 ppm

- OEL Type: ACGIH - TWA(8h): 66 mg/m3, 10 ppm - Notes: (IFV) - Hematologic, liver and kidney eff



- OEL Type: National - TWA: 67.5 mg/m3, 10 ppm - STEL: 101.2 mg/m3, 15 ppm - Notes: italy

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

- OEL Type: EU - TWA(8h): 375 mg/m3, 100 ppm - STEL: 563 mg/m3, 150 ppm - Notes: Skin

- OEL Type: ACGIH - TWA(8h): 184 mg/m3, 50 ppm - STEL: 368 mg/m3, 100 ppm - Notes: A4 - Eye and URT irr

DNEL Exposure Limit Values

Alluminium oxide - CAS: 1344-28-1

Worker Industry: 15.63 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 15.63 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects

Consumer: 6.58 mg/m3 - Exposure: Human Oral - Frequency: Long Term, systemic effects

Triethanolamine - CAS: 102-71-6

Worker Industry: 5 mg/m3 - Consumer: 1.25 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 5 mg/m3 - Consumer: 1.25 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects

Worker Industry: 6.3 mg/kg bw/day - Consumer: 3.1 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Consumer: 13 mg/kg bw/day - Exposure: Human Oral - Frequency: Long Term, systemic effects

2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether - CAS: 112-34-5

Worker Industry: 67.5 mg/m3 - Consumer: 40.5 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 67.5 mg/m3 - Consumer: 40.5 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects

Worker Industry: 101.2 mg/m3 - Consumer: 60.7 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, local effects

Worker Industry: 83 mg/kg - Consumer: 50 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Consumer: 5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects 1-methoxy-2-propanol: monopropylene glycol methyl ether - CAS: 107-98-2

Worker Industry: 369 mg/m3 - Consumer: 43.9 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 553.5 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects

Worker Industry: 50.6 mg/kg bw/day - Consumer: 18.1 mg/kg bw/day - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Consumer: 3.3 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

Triethanolamine - CAS: 102-71-6



Target: Fresh Water - Value: 0.32 mg/l

Target: Marine water - Value: 0.0032 mg/l

Target: Freshwater sediments - Value: 1.7 mg/kg Target: Marine water sediments - Value: 0.17 mg/kg

Target: Food chain - Value: 0.0151 mg/kg

2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether - CAS: 112-34-5

Target: Fresh Water - Value: 1.1 mg/l Target: Marine water - Value: 0.11 mg/l

Target: Freshwater sediments - Value: 4.4 mg/kg Target: Marine water sediments - Value: 0.44 mg/kg

Target: Soil (agricultural) - Value: 0.32 mg/kg

Target: Food chain - Value: 56 mg/kg

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

Target: STP - Value: 100 mg/l Target: gro - Value: 2.47 mg/kg

Target: Freshwater sediments - Value: 52.3 mg/kg Target: Marine water sediments - Value: 1 mg/l

Target: Fresh Water - Value: 10 mg/l

Target: Soil (agricultural) - Value: 4.59 mg/kg

8.2. Exposure controls

Eye protection:

Not needed for normal use. Anyway, operate according good working practices.

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Not needed for normal use.

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
Appearance and colour:	yellow paste		
Odour:	characteristic		
Odour threshold:	N.A.		
pH:	N.A.		
Melting point / freezing	N.A.		
point:			



Initial boiling point and	N.A.	
boiling range:		
Flash point:	N.A.	
Evaporation rate:	N.A.	
Solid/gas flammability:	N.A.	
Upper/lower flammability	N.A.	
or explosive limits:		
Vapour pressure:	N.A.	
Vapour density:	N.A.	
Relative density:	N.A.	
Solubility in water:		
Solubility in oil:	N.A.	
Partition coefficient	N.A.	
(n-octanol/water):		
Auto-ignition temperature:	N.A.	
Decomposition	N.A.	
temperature:		
Viscosity:	25.000 cps	
	(40°C)	
Explosive properties:	N.A.	
Oxidizing properties:	N.A.	

9.2. Other information

Properties	Value	Method:	Notes	
Miscibility:	N.A.			
Fat Solubility:	N.A.			
Conductivity:	N.A.			
Substance Groups relevant properties	N.A.			

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions None

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials None in particular.

10.6. Hazardous decomposition products



None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects Toxicological information of the product:

Toxicological information of the main substances found in the product:

Hydrocarbons C12-C16, isoalkanes, <2% Aromatics

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg - Source: OECD401

Test: LC50 - Route: Inhalation Vapour - Species: Rat > 5000 mg/m3 - Duration: 8h -

Source: OECD403

Test: LD50 - Route: Skin - Species: Rat > 5000 mg/kg - Source: OECD402

hydrocarbons, C10-C12, isoalkanes, <2% aromatic

a) acute toxicity:

Test: LC50 - Route: Inhalation Vapour - Species: Rat > 5000 mg/m3 - Duration: 8h -

Source: OECD 403

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg - Source: OECD 401

Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg - Source: OECD 402

Alluminium oxide - CAS: 1344-28-1

a) acute toxicity:

Test: LC50 - Route: Oral - Species: Rat > 15900 mg/kg - Source: OECD401

Test: LC50 - Route: Inhalation - Species: Rat > 2.3 mg/l - Duration: 4h - Source: OECD

403

Triethanolamine - CAS: 102-71-6

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 6400 mg/kg - Source: OECD 401

Test: LD50 - Route: Skin - Species: Rabbit = 2000 mg/kg - Source: OECD 402

Test: LC50 - Route: Inhalation - Species: Rat = 1.8 mg/m3 - Duration: 8h

2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether - CAS: 112-34-5

a) acute toxicity:

Test: LD50 - Route: Oral

Test: LD50 - Route: Skin

Test: Skin Irritant - Route: Skin

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 4016 mg/kg

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg

Test: LCO - Route: Inhalation - Species: Rat > 7000 ppm - Duration: 6h

f) carcinogenicity:

Test: R05 - Route: Inhalation Vapour - Species: Rat = 3000 ppm - Source: OECD 453

g) reproductive toxicity:

Test: R05 - Route: Inhalation Vapour - Species: Rat = 1000 ppm - Source: OOECD 416 reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and

2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) - CAS: 55965-84-9



a) acute toxicity:

Test: ATE - Route: Oral = 100 mg/kg Test: ATE - Route: Skin = 300 mg/kg

Test: ATE - Route: Inhalation Vapour = 3 mg/l Test: ATE - Route: Inhalation Mist = 0.5 mg/l

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

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

Hydrocarbons C12-C16, isoalkanes, <2% Aromatics

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 1000 mg/l - Duration h: 96 - Notes:

LL50-OECD203-Oncorhynchus mykiss

Endpoint: EC50 - Species: Daphnia > 1000 mg/l - Duration h: 48 - Notes: EL50 - OECD 202 Daphnia Magna

Endpoint: EC50 - Species: Algae > 1000 mg/l - Duration h: 72 - Notes: EL50 OECD 201 Pseudokirchnerella subcapitata

b) Aquatic chronic toxicity:

Endpoint: NOELR 72 h - Species: Daphnia > 1 mg/l - Notes: 21 d OECD 211- dafinia magna

hydrocarbons, C10-C12, isoalkanes, <2% aromatic

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 1000 mg/l - Duration h: 96 - Notes:

LL50-OECD203-Oncoryhynchus mykiss

Endpoint: EC50 - Species: Daphnia > 1000 mg/l - Duration h: 48 - Notes: EL50 - OECD 202- DAPHNIA MAGNA

Endpoint: EC50 - Species: Algae > 1000 mg/l - Duration h: 72 - Notes: EL50 OECD 201- pseudokirchnerella subcapitata

b) Aquatic chronic toxicity:

Endpoint: NOELR - Species: Daphnia = 1 mg/l - Duration h: 504 - Notes: Daphnia magna



Triethanolamine - CAS: 102-71-6

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 11800 mg/l - Duration h: 96 - Notes: Pimephales

promelas

Endpoint: EC50 - Species: Daphnia = 609.88 mg/l - Duration h: 48 - Notes:

Ceriodaphnia dubia ASTME1192

Endpoint: EC50 - Species: Algae = 512 mg/l - Duration h: 72 - Notes: Scenedesmus

subspicatus DIN 38412 part 9

2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether - CAS: 112-34-5

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 1300 mg/l - Duration h: 96 - Notes: OECD 203

Lepomis macrochirus

Endpoint: EC50 - Species: Daphnia > 100 mg/l - Duration h: 48 - Notes: EU method c2 daphnia magna

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Algae > 100 mg/l - Duration h: 96 - Notes: OECD 201

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 20800 mg/l - Duration h: 96 Endpoint: LC50 - Species: Daphnia = 21100 mg/l - Duration h: 48 Endpoint: EC50 - Species: Algae > 1000 mg/l - Duration h: 168

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

1-methoxy-2-propanol; monopropylene glycol methyl ether - CAS: 107-98-2

Bioaccumulative - Test: Kow - Partition coefficient 0.43 - Duration h: N.A. - Notes: 25°C

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances:

>= 10% - < 12.5% hydrocarbons, C10-C12, isoalkanes, <2% aromatic -

PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

N.A.

ROTARY FINE NEW/1



14.3. Transport hazard class(es)

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

N.A.

14.6. Special precautions for user

N.A.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code $_{\text{NI}}$ $_{\text{D}}$

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) 2015/830

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)

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 40

Restrictions related to the substances contained:

Restriction 55

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):

N.A.

This substance is not classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

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:

H304 May be fatal if swallowed and enters airways.

H226 Flammable liquid and vapour.

H413 May cause long lasting harmful effects to aquatic life.

EUH066 Repeated exposure may cause skin dryness or cracking.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H331 Toxic if inhaled.

Hazard class and hazard category	Code	Description
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Acute Tox. 3	3.1/3/Dermal	Acute toxicity (dermal), Category 3
Acute Tox. 3	3.1/3/Inhal	Acute toxicity (inhalation), Category 3
Acute Tox. 3	3.1/3/Oral	Acute toxicity (oral), Category 3
Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Skin Sens. 1,1A,1B	3.4.2/1-1A-1B	Skin Sensitisation, Category 1,1A,1B
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1
Aquatic Chronic 4	4.1/C4	Chronic (long term) aquatic hazard, category 4

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.

CAS: Chemical Abstracts Service (division of the American Chemical

Society).

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

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.

Page n. 13 of 13