

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 2/22/2018 Revision date: 12/6/2023 Supersedes version of: 3/20/2023 Version: 1.1

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

1.1. Product identifier

Product form : Mixture

Trade name : REDOXY PLUS

UFI : XXEA-9XMD-SD09-6CA3

Product group : Trade product

Other means of identification : E224 - E300 - E330 - E353

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

1.2.1. Relevant identified uses

Main use category : Professional use

Industrial/Professional use spec : For professional users only

Use of the substance/mixture : Stabiliser, antioxidant made of citric acid, potassium metabisulphite, ascorbic acid, metatartaric

acid.

1.2.2. Uses advised against

Restrictions on use : Food/feedstuff additives

1.3. Details of the supplier of the safety data sheet

Manufacturer

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1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Australia	NSW Poisons Information Centre The Children's Hospital at Westmead	Locked Bag 4001 NSW 2145	13 11 26	
Bulgaria	Национален токсикологичен информационен център Многопрофилна болница за активно лечение и спешна медицина "Н.И.Пирогов"	бул. Ген. Едуард И. Тотлебен 21 1606 София	+359 2 9154 233	
Canada	Ontario Poison Centre (OPC)	The Hospital for Sick Children 555 University Avenue ON M5G 1X8 Toronto	1-800-268-9017 (416) 813-5900	
Canada	BC Drug and Poison Information Centre (DPIC)	655 West 12th Avenue BC V5Z 4R4 Vancouver	1-800-567-8911 (604) 682-5050	
China	National Poison Control Center	Chinese Center for Disease Control and Prevention Nanwei road, No.29 100050 Beijing	+86 10 831 32 046	
Croatia	Centar za kontrolu otrovanja Institut za medicinska istraživanja i medicinu rada	Ksaverska Cesta 2 p.p. 291 10000 Zagreb	+385 1 234 8342	Information available 24/7 in Croatian and English
Czech Republic	Toxikologické informační středisko Klinika pracovního lékařství VFN a 1. LF UK	Na Bojišti 1 120 00 Praha 2	+420 224 919 293 +420 224 915 402	
Denmark	Giftlinjen	Bispebjerg Bakke 23 Opgang 20 C 2400 København NV	+45 82 12 12 12	
Georgia	National Toxicology Information Advisory Center	Tbilisi State Medical University Department of Toxicology - 7 Asatiani St. 380 077 Tbilisi	+995 99 533320	
Greece	Poisons Information Centre Children's Hospital P&A Kyriakou	11762 Athens	+30 2 10 779 3777	
Hungary	Országos Kémiai Biztonsági Intézet Egészségügyi Toxikológiai Tájékoztató Szolgálat	Nagyvárad tér 2. 1437 Budapest, Pf. 839 1097 Budapest	+36 80 20 11 99	
Israel	Israel Poison Information Center Rambam Health Care Campus	6 Ha'Aliya Street 31096	+972 4 854 1900	
Japan	Japan Poison Information Center	Tsukuba Medical Center 1-1-1 Amakubo 305-0005 Tsukuba City, Ibaraki	+81-29-856-3566 +81-72-727-2499	
Jordan	National Drug & Poison Information Center of Jordan		0798506755 00962-6-5353444	
Kazakhstan	Republican Toxicology Center	Tole-bi 93 480083 Almaty	+7 3272 925 868	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	

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Organisation/Company	Address	Emergency number	Comment
National Poisons Centre	Dunedin School of Medicine, University of Otago PO Box 913 9054 Dunedin	0800 764 766 +56 2 2 247 3600	
National Poisons Information Centre The Nofer Institute of Occupational Medicine (Łódź)	ul. Teresy 8 P.O. BOX 199 90950 Łódź	+48 42 63 14 724	
Department of Clinical Toxicology Spitalul de Urgenta Floreasca	Calea Floreasca Bucuresti	+40 21 230 8000	
Информационно-консультативный центр по токсикология (RTIAC) Министерство здравоохранения Российской Федерации	3 Сухаревская Площадь Блок 7 129090 г. Москва	+7 495 628 1687 (только на русском)	
Nacionalni centar za kontrolu trovanja - VMA	Crnotravska 17 11000 Beograd	+381 11 360 84 40	
Center za klinično toksikologijo in farmakologijo Interna klinika, UKCL	Zaloška 7 1000 Ljubljana	+386 522 52 83	
Tygerberg Poison Information Centre	Division of Clinical Pharmacology Faculty of Medicine and Heath Sciences Stellenbosch University - PO Box 241 8 000 Cape Town	0861 555 777 +56 2 2 247 3600	
Giftinformationscentralen	Solna Strandväg 21 171 54 Solna	112 – begär Giftinformation	
Ulusal Zehir Merkezi (UZEM) Refik Saydam Hıfzısıhha Merkezi Başkanlığı	Cemal Gürsel Cd. No: 18 Sıhhiye Çankaya 06590 Ankara	114	Information is provided to public and medical personnel on poisoning incidents via 114.
National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	Only for healthcare professionals
National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
National Poisons Information Service (Cardiff Centre) University Hospital Llandough	Penlan Road CF64 2XX	0344 892 0111	Only for healthcare professionals
National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA	0344 892 0111	Only for healthcare professionals
Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	
National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre	16/17 Framlington Place Newcastle-upon-Tyne NE2 4AB	0344 892 0111	Only for healthcare professionals
	National Poisons Centre National Poisons Information Centre The Nofer Institute of Occupational Medicine (Łódź) Department of Clinical Toxicology Spitalul de Urgenta Floreasca Информационно-консультативный центр по токсикология (RTIAC) Министерство здравоохранения Российской Федерации Nacionalni centar za kontrolu trovanja - VMA Center za klinično toksikologijo in farmakologijo Interna klinika, UKCL Tygerberg Poison Information Centre Giftinformationscentralen Ulusal Zehir Merkezi (UZEM) Refik Saydam Hıfzısıhha Merkezi Başkanlığı National Poisons Information Service (Belfast Centre) Royal Victoria Hospital National Poisons Information Service (Birmingham Centre) City Hospital National Poisons Information Service (Cardiff Centre) University Hospital Llandough National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust National Poisons Information Service (Newcastle Centre)	National Poisons Centre National Poisons Information Centre The Nofer Institute of Occupational Medicine, University of Otago PO Box 913 9054 Dunedin National Poisons Information Centre The Nofer Institute of Occupational Medicine (Łódź) Department of Clinical Toxicology Spitalul de Urgenta Floreasca Информационно-консультативный центр по токсикология (RTIAC) Министерство здравоохранения Российской Федерации Nacionalni centar za kontrolu trovanja - VMA Crnotravska 17 11000 Beograd Center za klinično toksikologijo in Zaloška 7 1000 Ljubljana Center za klinično toksikologijo in Genter aklinika, UKCL Tygerberg Poison Information Centre Division of Clinical Pharmacology Faculty of Medicine and Heath Sciences Stellenbosch University - PO Box 241 8 000 Cape Town Giftinformationscentralen Ulusal Zehir Merkezi (UZEM) Refik Saydam Hıfzısıhha Merkezi Başkanlığı Cemal Gürsel Cd. No: 18 Sıhhiye Çankaya 06590 Ankara National Poisons Information Service (Belfast Centre) Royal Victoria Hospital National Poisons Information Service (Cardiff Centre) University Hospital Llandough National Poisons Information Service (Cardiff Centre) University Hospital Llandough National Poisons Information Service (Cardiff Centre) Royal Infirmary of Edinburgh Guy's & St Thomas' Poisons Unit Medical Trust National Poisons Information Service (Edimburgh Centre) Royal Infirmary of Edinburgh Guy's & St Thomas' Poisons Unit Medical Trust National Poisons Information Service (Edinburgh Centre) Royal Infirmary of Edinburgh Guy's & St Thomas' Poisons Unit Medical Trust National Poisons Information Service (Newcastle Lepnn-Tyne	National Poisons Centre Dunedin School of Medicine, University of Otago PO Box 913 9054 Dunedin National Poisons Information Centre The Nofer Institute of Occupational Medicine (Iddit) Department of Clinical Toxicology Spitalul de Urgenta Floreasca Uнформационно-консультативный центр по токсикология (RTIAC) Министерство адравоохранения Российской Федерации Nacionalni centar za kontrolu trovanja - VMA Nacionalni centar za kontrolu trovanja - VMA Center za klinično toksikologijo in farmakologijo Interna klinika, UKCL Tygerberg Poison Information Centre Division of Clinical Pharmacology Stellenbosch University - PO Box 241 8 000 Cape Town Giftinformationscentralen Ulusal Zehir Merkezi (UZEM) Refik Saydam Hifzishha Merkezi Başkanlığı Ocisyal Victoria Hospital National Poisons Information Service (Belfast Centre) National Poisons Information Service (Cardiff Emilia Pharmacology Brita Saydam Hifzishha Merkezi Başkanlığı Ocisyal Victoria Hospital National Poisons Information Service University Hospital Llandough National Poisons Information Service (Edimburgh Centre) Uluses Stellenbosch Information Service (Edimburgh Centre) University Hospital Llandough National Poisons Information Service (Edimburgh Centre) University Hospital Llandough National Poisons Information Service (Edimburgh Centre) University Hospital Information Service (Edimburgh Centre) Centre) University Hospital Pharmacology Centre

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United States of	American Association of Poison Control	515 King St., Suite 510	1-800-222-1222	
America	Centers	VA 22314 Alexandria	+56 2 2 247 3600	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Serious eye damage/eye irritation, Category 1 H318 Specific target organ toxicity - Single exposure, Category 3, Respiratory tract H335

irritation

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Causes serious eye irritation. May cause respiratory irritation. Causes serious eye damage.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS05

GHS07

Signal word (CLP) : Danger

Contains : citric acid; Potassium disulphite; Potassium pentaoxo disulphate

Hazard statements (CLP) : H318 - Causes serious eye damage.

H335 - May cause respiratory irritation.

Precautionary statements (CLP) : P261 - Avoid breathing dust, fume, gas, mist, vapours, spray.

P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear protective gloves, protective clothing, eye protection, face protection. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER, a doctor.

EUH-statements : EUH031 - Contact with acids liberates toxic gas.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Citric acid - E330	CAS-No.: 77-92-9 EC-No.: 201-069-1 EC Index-No.: 607-750-00-3 REACH-no: 01-2119457026-42	25 – 50	Eye Irrit. 2, H319 STOT SE 3, H335
Potassium metabisulphite - E224 substance with a Community workplace exposure limit	CAS-No.: 16731-55-8 EC-No.: 240-795-3 REACH-no: 01-2119537422-45	25 – 50	Eye Dam. 1, H318

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If symptoms persist call a doctor. Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a

physician. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : After contact with skin, wash immediately and thoroughly with water and soap. If symptoms persist,

call a physician. Wash skin with plenty of water.

First-aid measures after eye contact : In case of eye contact, immediately rinse with clean water for 10-15 minutes. Rinse cautiously with

water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a

physician immediately.

First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Never give anything by

mouth to an unconscious person. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects : More detailed information: See section 11.

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : None under normal conditions. Dust may cause irritation in skin folds or by contact in combination

with tight clothing.

Symptoms/effects after eye contact : Eye irritation. Serious damage to eyes. Symptoms/effects after ingestion : None under normal conditions.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : carbon dioxide (CO2), powder, alcohol-resistant foam, water spray. Water spray. Dry powder. Foam.

Unsuitable extinguishing media : Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No fire hazard.

Explosion hazard : No direct explosion hazard.

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon oxides (CO, CO2). Sulphur oxides.

5.3. Advice for firefighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper

protective equipment, including respiratory protection.

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Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing

apparatus. Complete protective clothing.

Other information : Do not contaminate ground and surface water. Dispose in a safe manner in accordance with

local/national regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material

damage.

6.1.1. For non-emergency personnel

Protective equipment : Wear personal protective equipment.

Emergency procedures : Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin

and eyes.

Measures in case of dust release : Avoid dust formation.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer

to section 8: "Exposure controls/personal protection".

Emergency procedures : Evacuate unnecessary personnel.

6.2. Environmental precautions

Avoid release to the environment. Do not flush into surface water or sewer system.

6.3. Methods and material for containment and cleaning up

For containment : Using a clean shovel, put the material in a dry container and cover without compressing it.

Methods for cleaning up : Mechanically recover the product. Contain leaking substance, pump over in suitable containers.

Clean contaminated surfaces with an excess of water.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

Precautions for safe handling : Avoid dust formation. Store tightly closed in a dry and cool place. Ensure good ventilation of the

work station. Use only outdoors or in a well-ventilated area. Avoid breathing

dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Wear personal protective

equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep only in the original container.

Storage conditions : Keep container tightly closed to prevent moisture pick-up. Store in a dry, cool place. Keep out of

direct sunlight. Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Incompatible products : Oxidizing agents, bases and reducing agents. Strong acids.

Heat and ignition sources : Keep away from ignition sources (including static discharges).

Packaging materials : Store always product in container of same material as original container.

7.3. Specific end use(s)

No additional information available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Potassium metabisulphite - E224 (16731-55-8)		
EU - Indicative Occupational Exposure Limit (IOEL)		
IOEL TWA	≈ 0.5 ppm (SO2)	
IOEL STEL	≈ 1 ppm (SO2)	
Remark	SO2	
France - Occupational Exposure Limits		
Local name	Dioxyde de soufre (CAS: 7446-09-5)	
VME (OEL TWA)	≈ 5 mg/m³	
	≈ 2 ppm	
VLE (OEL C/STEL)	≈ 10 mg/m³	
	≈ 5 ppm	
Remark	Limite donnée à titre indicative	
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL STEL	0.25 ppm (SO2)	
Remark (ACGIH)	SO2	

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Refer to protective measures listed in Sections 7 and 8.

Personal protective equipment symbol(s):







8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

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Eye protection				
Туре	Field of application	Characteristics	Standard	
Safety glasses	Dust	With side shields	EN 166	

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Skin and body protection		
Туре	Standard	
Chemically resistant protective gloves		

Hand protection:

Protective gloves. Protective gloves made of PVC. Butyl rubber gloves. Nitrile rubber gloves. Natural rubber

Hand protection					
Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.4		EN 420, EN ISO 374
Chemically resistant protective gloves	Chloroprene rubber (CR)	6 (> 480 minutes)	0.5		EN 420, EN ISO 374
Chemically resistant protective gloves	Butyl rubber	6 (> 480 minutes)	0.7		EN 420, EN ISO 374

Other skin protection

Materials for protective clothing:

acid resistant clothing

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. EN 143

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Do not allow into drains or water courses. Avoid release to the environment.

Other information:

Do not eat, drink or smoke during work. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid Colour : white.

Appearance : Crystals. Powder.
Odour : characteristic.
Odour threshold : Not available

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Melting point : > 400 °C Freezing point : Not applicable **Boiling point** : Not available Flammability : Non flammable. **Explosive limits** : Not applicable Lower explosion limit : Not applicable Upper explosion limit : Not applicable Flash point Not applicable Auto-ignition temperature Not applicable Decomposition temperature : > 100 °C рΗ : Not available pH solution : Not available Viscosity, kinematic : Not applicable Solubility : Not available Partition coefficient n-octanol/water (Log Kow) : Not available : Not available Vapour pressure Vapour pressure at 50°C : Not available : ≈ 1.2 g/cm³ 20°C Density Relative density Not available Relative vapour density at 20°C Not applicable Not available Particle size Particle size distribution Not available : Not available Particle shape Particle aspect ratio : Not available Particle aggregation state : Not available Particle agglomeration state : Not available Particle specific surface area : Not available Particle dustiness : Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Exothermic reaction on contact with: Oxidizing agents, bases and reducing agents. on contact with reactive metals (Al, K, Zn ...).

10.4. Conditions to avoid

Heat. flames or sparks. Moisture.

10.5. Incompatible materials

oxidants, strong acids and strong bases.

10.6. Hazardous decomposition products

See Section 5.

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SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Citric acid - E330 (77-92-9)		
LD50 oral rat	≈ 5400 mg/kg bodyweight	
LD50 oral	5400 mg/kg bodyweight Animal: mouse, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 4500 - 6400	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)	
LD50 dermal	> 2000 mg/kg bodyweight	
Potassium metabisulphite - E224 (16731-55-8)		
LD50 oral rat	> 2300 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)	
LD50 dermal	> 2000 mg/kg	
LC50 Inhalation - Rat	> 5.5 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation :	Not classified	

Serious eye damage/irritation : Severe eye irritation

Additional information : Causes serious eye damage.

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified

STOT-single exposure : May cause respiratory irritation.

STOT-single exposure	May cause respiratory irritation.
Citric acid - E330 (77-92-9)	

STOT-repeated exposure : Not classified

Citric acid - E330 (77-92-9)	
LOAEL (oral, rat, 90 days)	8000 mg/kg bodyweight Animal: rat
NOAEL (oral, rat, 90 days)	4000 mg/kg bodyweight Animal: rat

Aspiration hazard : Not classified

REDOXY PLUS	
Viscosity, kinematic	Not applicable

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

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Hazardous to the aquatic environment, short–term

: Not classified

(acute)

Hazardous to the aquatic environment, long-term

: Not classified

(chronic)

Citric acid - E330 (77-92-9)		
LC50 - Fish [1]	> 100 mg/l Test organisms (species): Pimephales promelas	
EC50 - Crustacea [1]	1535 mg/l 24h - Daphnia magna	
EC50 - Other aquatic organisms [1]	> 50 mg/l Test organisms (species): other aquatic crustacea:	
NOEC (acute)	425 mg/l 8 days	
Potassium metabisulphite - E224 (16731-55-8)		
LC50 - Fish [1]	460 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)	
EC50 - Crustacea [1]	74.9 mg/l Test organisms (species): Daphnia magna	
EC50 - Other aquatic organisms [1]	65 mg/l 17h - Bacteria	
EC50 72h - Algae [1]	36.8 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	
NOEC (chronic)	> 10 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	
NOEC chronic fish	≥ 50 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '34 d'	
NOEC chronic algae	> 8.41 mg/l Daphnia magna	

12.2. Persistence and degradability

Citric acid - E330 (77-92-9)		
Persistence and degradability	Biodegradable.	
Potassium metabisulphite - E224 (16731-55-8)		
Persistence and degradability Mineral. Not biodegradable.		
Chemical oxygen demand (COD)	0.14 g O ₂ /g substance	

12.3. Bioaccumulative potential

Citric acid - E330 (77-92-9)		
Partition coefficient n-octanol/water (Log Pow)	-0.2 – -1.8 20°C	
Partition coefficient n-octanol/water (Log Kow)	≈ -1.7 20°C	
Bioaccumulative potential	There is no bioaccumulation.	
Potassium metabisulphite - E224 (16731-55-8)		
Partition coefficient n-octanol/water (Log Pow) ≈ -4		
Bioaccumulative potential	There is no bioaccumulation.	

12.4. Mobility in soil

Potassium metabisulphite - E224 (16731-55-8)	
Additional information	Not volatile

12.5. Results of PBT and vPvB assessment

No additional information available

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12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Other adverse effects : Do not allow to enter drains or water courses

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Do not flush into surface water or sewer system. Disposal must be done according to official

regulations.

Product/Packaging disposal recommendations : Empty remaining contents. Dispose of contents/container in accordance with licensed collector's

sorting instructions. Disposal must be done according to official regulations.

Additional information : Do not re-use empty containers.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR) : Not regulated UN-No. (IMDG) : Not regulated UN-No. (IATA) : Not regulated UN-No. (ADN) : Not regulated UN-No. (RID) : Not regulated UN-No. (RID) : Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not regulated
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated
Proper Shipping Name (ADN) : Not regulated
Proper Shipping Name (RID) : Not regulated

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not regulated

IMDG

Transport hazard class(es) (IMDG) : Not regulated

IATA

Transport hazard class(es) (IATA) : Not regulated

ADN

Transport hazard class(es) (ADN) : Not regulated

RID

Transport hazard class(es) (RID) : Not regulated

14.4. Packing group

Packing group (ADR) : Not regulated

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Packing group (IMDG) : Not regulated
Packing group (IATA) : Not regulated
Packing group (ADN) : Not regulated
Packing group (RID) : Not regulated

14.5. Environmental hazards

Dangerous for the environment : No Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

Contains no substance(s) listed on the REACH Candidate List

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

15.1.2. National regulations

France	
Occupational diseases	
Code	Description
RG 66	Occupational rhinitis and asthma

Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed SZW-lijst van mutagene stoffen : None of the components are listed SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

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SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : None of the components are listed SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

For the following substances of this mixture a chemical safety assessment has been carried out:

Potassium metabisulphite - E224

SECTION 16: Other information

Indication of changes:

Revision - See: *.

Indication of changes			
Section	Changed item	Change	Comments
1.1	UFI	Added	

Abbreviations and acronyms:	
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
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit

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Abbreviations and acronyms:	
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
EUH031	Contact with acids liberates toxic gas.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.