

Human Hemoglobin A1a, A1b mixture; 15 mg

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 07/11/2024 Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Product name : Human Hemoglobin A1a, A1b mixture; 15 mg
Product code : HbA2-15
Type of product : Laboratory chemicals
Product group : Finished Product

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

Relevant identified uses

Use of the substance/mixture : For laboratory use only

Uses advised against

Restrictions on use : Laboratory chemicals

1.3. Details of the supplier of the safety data sheet

Exocell
Ethos Biosciences, Inc.
2070 Center Square Road
08085 Logan Township, New Jersey
United States
T +1-856-224-0900; +1-800-441-0366 Technical Service; Monday-Friday: 8:00 AM-5:00 PM, Eastern US Time
www.ethosbiosciences.com

1.4. Emergency telephone number

Emergency number : 800-424-9300 CHEMTREC (USA) -- 24 Hours/Day, 7 Days/Week

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

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

Unknown acute toxicity (CLP) - SDS : 98.6% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
98.6% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
98.6% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

2.3. Other hazards

Other hazards which do not result in classification : Human source material. Handle as if capable of transmitting infectious agents.

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

Component

Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	potassium phosphate, monobasic (7778-77-0)([†]), sodium chloride (7647-14-5), potassium phosphate, dibasic (7758-11-4)([†]), phosphoric acid (7664-38-2)([†]), potassium cyanide (151-50-8)
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Component	
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	potassium phosphate, monobasic (7778-77-0) ⁽¹⁾ , sodium chloride (7647-14-5), potassium phosphate, dibasic (7758-11-4) ⁽¹⁾ , phosphoric acid (7664-38-2) ⁽¹⁾ , potassium cyanide (151-50-8)

⁽¹⁾ Substance(s) in concentration below 0.1 % and displayed on a voluntary basis

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 substance(s) are 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 %

Component	
Substance(s) not 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	phosphoric acid (7664-38-2) ⁽¹⁾

⁽¹⁾ Substance(s) in concentration below 0.1 % and displayed on a voluntary basis

SECTION 3: Composition/Information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Deionized Water	CAS-No.: 7732-18-5	> 96	Not classified
hemoglobin, Hb	CAS-No.: 9008-02-0	1 – 2	Not classified
sodium chloride	CAS-No.: 7647-14-5 EC-No.: 231-598-3	≤ 0.6	Not classified
potassium phosphate, monobasic	CAS-No.: 7778-77-0 EC-No.: 231-913-4	< 0.1	Not classified
potassium phosphate, dibasic	CAS-No.: 7758-11-4 EC-No.: 231-834-5	< 0.1	Not classified
potassium cyanide	CAS-No.: 151-50-8 EC-No.: 205-792-3 EC Index-No.: 006-007-00-5	≤ 0.1	Met. Corr. 1, H290 Acute Tox. 1 (Inhalation), H330 Acute Tox. 1 (Dermal), H310 Acute Tox. 1 (Oral), H300 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
phosphoric acid	CAS-No.: 7664-38-2 EC-No.: 231-633-2 EC Index-No.: 015-011-00-6	< 0.01	Skin Corr. 1B, H314 Eye Dam. 1, H318

Specific concentration limits:		
Name	Product identifier	Specific concentration limits (%)
phosphoric acid	CAS-No.: 7664-38-2 EC-No.: 231-633-2 EC Index-No.: 015-011-00-6	(10 ≤ C < 25) Skin Irrit. 2; H315 (10 ≤ C < 25) Eye Irrit. 2; H319 (25 ≤ C < 100) Skin Corr. 1B; H314

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

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SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.
First-aid measures for first aider	: First aid workers will be equipped with suitable personal protective equipment.

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

Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: None under normal conditions.
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	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
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For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area.

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. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

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6.3. Methods and material for containment and cleaning up

- For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
- Methods for cleaning up : Take up liquid spill into absorbent material.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

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 : Ensure good ventilation of the work station. 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 in a cool, well-ventilated place away from heat.
- Storage conditions : Keep cool. Protect from sunlight.
- Packaging materials : Store always product in container of same material as original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

potassium cyanide (151-50-8)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	1 mg/m ³
IOEL STEL	5 mg/m ³

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:

Safety glasses

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Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Not available
Odor	: Not available
Odor threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapor pressure	: Not available
Vapor pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapor density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

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.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

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10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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

potassium phosphate, monobasic (7778-77-0)	
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 0.83 mg/l air (EPA OPP 81-3: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust), 14 day(s))

sodium chloride (7647-14-5)	
LD50 oral rat	> 3980 mg/kg body weight (Rat, Experimental value, 20% aqueous solution, Oral)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit, Experimental value, Dermal)
LC50 Inhalation - Rat	> 42 mg/l air (1 h, Rat, Male, Experimental value, 20% aqueous solution, Inhalation (aerosol))

potassium phosphate, dibasic (7758-11-4)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 0.83 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Read-across, (maximum achievable concentration), Inhalation (dust), 14 day(s))

potassium cyanide (151-50-8)	
LD50 oral rat	7.49 mg/kg (Rat, Female, Experimental value, Oral)
LD50 dermal rabbit	14.29 – 22.33 mg/kg (< 6 h, Rabbit, Female, Experimental value, Dermal)
LC50 Inhalation - Rat	0.144 mg/l (Equivalent or similar to OECD 403, 1 h, Rat, Read-across, Inhalation (dust))

Unknown acute toxicity (CLP) - SDS : 98.6% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)
98.6% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)
98.6% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

Skin corrosion/irritation : Not classified

potassium phosphate, monobasic (7778-77-0)	
pH	4.5 (1 %)

sodium chloride (7647-14-5)	
pH	7.5 (18 °C)

potassium phosphate, dibasic (7758-11-4)	
pH	9.2

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phosphoric acid (7664-38-2)	
pH	No data available in the literature
potassium cyanide (151-50-8)	
pH	11 (0.65 %)
Serious eye damage/irritation : Not classified	
potassium phosphate, monobasic (7778-77-0)	
pH	4.5 (1 %)
sodium chloride (7647-14-5)	
pH	7.5 (18 °C)
potassium phosphate, dibasic (7758-11-4)	
pH	9.2
phosphoric acid (7664-38-2)	
pH	No data available in the literature
potassium cyanide (151-50-8)	
pH	11 (0.65 %)
Respiratory or skin sensitization : Not classified	
Germ cell mutagenicity : Not classified	
Carcinogenicity : Not classified	
Reproductive toxicity : Not classified	
STOT-single exposure : Not classified	
STOT-repeated exposure : Not classified	
potassium cyanide (151-50-8)	
STOT-repeated exposure	Causes damage to organs (thyroid gland) through prolonged or repeated exposure.
Aspiration hazard : Not classified	
potassium phosphate, monobasic (7778-77-0)	
Viscosity, kinematic	Not applicable (solid)
sodium chloride (7647-14-5)	
Viscosity, kinematic	Not applicable (solid)
potassium phosphate, dibasic (7758-11-4)	
Viscosity, kinematic	Not applicable (solid)
phosphoric acid (7664-38-2)	
Viscosity, kinematic	No data available in the literature
potassium cyanide (151-50-8)	
Viscosity, kinematic	Not applicable (solid)

11.2. Information on other hazards

No additional information available

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

potassium phosphate, monobasic (7778-77-0)	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 100 mg/l (EU Method C.3, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)

sodium chloride (7647-14-5)	
LC50 - Fish [1]	5840 mg/l (ASTM, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)

potassium phosphate, dibasic (7758-11-4)	
LC50 - Fish [1]	> 900 mg/l (48 h, Leuciscus idus, Static system)
LC50 - Fish [2]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Read-across, Nominal concentration)
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Read-across, Nominal concentration)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Read-across, Nominal concentration)

potassium cyanide (151-50-8)	
LC50 - Fish [1]	98.8 µg/l (ASTM E729-96, 96 h, Gasterosteus aculeatus, Flow-through system, Fresh water, Read-across, Cyanide ion)
ErC50 algae	0.116 mg/l (ISO 8692, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Cyanide ion)

12.2. Persistence and degradability

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Persistence and degradability	Not rapidly degradable
potassium phosphate, monobasic (7778-77-0)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
sodium chloride (7647-14-5)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

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potassium phosphate, dibasic (7758-11-4)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

phosphoric acid (7664-38-2)	
Persistence and degradability	Biodegradability: not applicable.

potassium cyanide (151-50-8)	
Persistence and degradability	Inherently biodegradable.
Chemical oxygen demand (COD)	0.614 g O ₂ /g substance
BOD (% of ThOD)	0 (7 day(s), Literature study)

Deionized Water (7732-18-5)	
Persistence and degradability	Not rapidly degradable

hemoglobin, Hb (9008-02-0)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

potassium phosphate, monobasic (7778-77-0)	
Bioaccumulative potential	Not bioaccumulative.

sodium chloride (7647-14-5)	
Bioaccumulative potential	Not bioaccumulative.

potassium phosphate, dibasic (7758-11-4)	
Bioaccumulative potential	Not bioaccumulative.

phosphoric acid (7664-38-2)	
Bioaccumulative potential	Does not contain bioaccumulative component(s).

potassium cyanide (151-50-8)	
BCF - Other aquatic organisms [1]	3.162 l/kg (BCFBAF v3.00, Read-across, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	-0.25 (Similar product, Literature, 20 °C)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

potassium phosphate, monobasic (7778-77-0)	
Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available.

sodium chloride (7647-14-5)	
Surface tension	73.03 mN/m (23 °C, 14.5 g/l)
Ecology - soil	No (test)data on mobility of the substance available.

potassium phosphate, dibasic (7758-11-4)	
Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available.

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phosphoric acid (7664-38-2)

Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the component(s) available.

potassium cyanide (151-50-8)

Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.4534 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Highly mobile in soil.

12.5. Results of PBT and vPvB assessment

Component

Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	potassium phosphate, monobasic (7778-77-0) ^(†) , sodium chloride (7647-14-5), potassium phosphate, dibasic (7758-11-4) ^(†) , phosphoric acid (7664-38-2) ^(†) , potassium cyanide (151-50-8)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	potassium phosphate, monobasic (7778-77-0) ^(†) , sodium chloride (7647-14-5), potassium phosphate, dibasic (7758-11-4) ^(†) , phosphoric acid (7664-38-2) ^(†) , potassium cyanide (151-50-8)

^(†) Substance(s) in concentration below 0.1 % and displayed on a voluntary basis

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

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	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.
HP code	: HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated for transport				
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

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ADR	IMDG	IATA	ADN	RID
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
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

EU-Regulations

REACH Annex XVII (Restriction List)

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

REACH Annex XIV (Authorisation List)

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

REACH Candidate List (SVHC)

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

PIC Regulation (Prior Informed Consent)

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

POP Regulation (Persistent Organic Pollutants)

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

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items: Potassium cyanide (151-50-8).

Explosives Precursors Regulation (2019/1148)

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

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

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15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

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
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 disruptor

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Full text of H- and EUH-phrases:	
Acute Tox. 1 (Dermal)	Acute toxicity (dermal), Category 1
Acute Tox. 1 (Inhalation)	Acute toxicity (inhalation) Category 1
Acute Tox. 1 (Oral)	Acute toxicity (oral) Category 1
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard Category 1
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H290	May be corrosive to metals.
H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

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.