SECTION 1. Identification of the substance/mixture and of the company/enterprise

1.1. Product identifier

Product name : OXY A
Product code: refer to sales department

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

Oxidant
Sectors of use:
Industrial Manufacturing[SU3], Manufacture of food products[SU4]
Product category:
Washing and Cleaning Products (including solvent based products)
Process categories:
Use in batch and other process (syn- thesis) where opportunity for exposure arises[PROC4], Transfer of substance or mixture (charging and discharging) at dedicated facilities[PROC8B]

Not recommended uses
Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

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Tel. +39.030.2307.1 Fax +39.030.2307281
E-mail: info@aeb-group.com - Internet: www.aeb-group.com
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Produced by
AEB SpA
Via Vittorio Arici 104 S. Polo
25134 Brescia

1.4. Emergency telephone number

AEB SpA
Centralino/Switchboard: +39.030.2307.1 - (h 8.30-12.00 13.30-18.00 GMT +1; Lingua/Language: Italiano, English)

AEB USA
Switchboard: +1 2096258139 (GMT -8; Language: English)

AEB AFRICA (PTY) LTD
Switchboard: +27 215512700 (GMT +1; Language: English, Afrikaans)

AEB OCEANIA PTY LTD
Switchboard: +61 1300 704 971 (GMT +9; Language: English)

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

CAS 7722-84-1 CEE 008-003-00-9 EINECS 231-765-0 REACH 01-2119485845-22-XXXX

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:
GHS05, GHS07

Hazard Class and Category Code(s):
Acute Tox. 4, Eye Dam. 1, Aquatic Chronic 3

Hazard statement Code(s):
H302+H332 - Harmful if swallowed or if inhaled
H318 - Causes serious eye damage.
H412 - Harmful to aquatic life with long lasting effects.

Harmful product: do not ingest or inhale
If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.
The product is dangerous to the environment as it is harmful to aquatic life with long lasting effects

2.1.2 Additional information:

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):
GHS05, GHS07 - Danger

Hazard statement Code(s):

H302+H332 - Harmful if swallowed or if inhaled
H318 - Causes serious eye damage.
H412 - Harmful to aquatic life with long lasting effects.

Supplemental Hazard statement Code(s):
not applicable

Precautionary statements:
Prevention
P261 - Avoid breathing vapours/spray.
P280 - Wear eye/face protection.
Response
P301+P312 - IF SWALLOWED: Call a POISON CENTER or a doctor if you feel unwell.
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.
Disposal
P501 - Dispose of contents/container to local/regional/national/international regulations

Contains: Hydrogen peroxide solution 35%

Contains (Reg.EC 648/2004): > 30% oxygen-based bleaching agents

2.3. Other hazards

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

The use of this chemical agent implies the obligation of the "risk assessment" by the employer according to the provisions of Legislative Decree April 9, 2008 no. 81 and subsequent amendments. If the results of the risk assessment demonstrate that, in relation to the type, quantity, methods and frequency of exposure, there is only a low risk for the safety and irrelevant for the health of the workers and that the measures referred to in paragraph 1 of Legislative Decree April 9, 2008 no. 81 are sufficient to reduce the risk, the provisions of articles 225, 226, 229, 230 of the same Legislative Decree do not apply

Do not ingest. Keep out of reach of children.

SECTION 3. Composition/information on ingredients

3.1 Substances

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
Hydrogen peroxide	>= 25 < 35%	Ox. Liq. 1, H271; Acute Tox. 4, H302; Skin Corr. 1A, H314; Acute Tox. 4, H332; STOT SE 3, H335; Aquatic Chronic 3, H412 Limits: Skin Corr. 1A,	008-003-00-9	7722-84-1	231-765-0	01-2119485845-22-XXXX

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
		H314 %C >=70; Skin Corr. 1B, H314 50<= %C <70; Skin Irrit. 2, H315 35<= %C <50; Eye Dam. 1, H318 8<= %C <50; Eye Irrit. 2, H319 5<= %C <8; STOT SE 3, H335 %C >=35; Ox. Liq. 1, H271 %C >=70; Ox. Liq. 2, H272 50<= %C <70; Acute toxicity M-factor = 1 Chronic toxicity M-factor = 1 ATE oral = 596,0 mg/kg ATE inhal = 11,0 mg/l/4 h				

3.2 Mixtures

Irrilevant

SECTION 4. First aid measures

4.1. Description of first aid measures

In case of skin contact: Remove contaminated clothing immediately. Wash immediately with plenty of running water and possibly soap the areas of the body that have come into contact with the product, even if only suspected. Remove contaminated clothing immediately and dispose of it safely.
In case of eye contact: In case of contact with eyes, rinse with water for an adequate period of time and holding the eyelids open, then consult an ophthalmologist immediately. Protect the uninjured eye.
In case of ingestion: DO NOT induce vomiting. Do not give anything to eat or drink. Contact a Poison Control Center immediately and go to the emergency room.
In case of inhalation: If you feel unwell, contact a Poison Control Center immediately and go to the emergency room.

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

Inhalation causes burning sensation, coughing, difficulty breathing and sore throat.
Contact with skin causes redness.
Contact with eyes causes redness, pain, severe deep burns and loss of vision.
If swallowed, causes severe burns to lips, mouth, throat and esophagus, with gastric disturbances and abdominal pain.

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

In case of discomfort following contact with the product, go immediately to the emergency room and, if possible, show this document. ù
Symptomatic treatment.
UFI code on the label

SECTION 5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Water spray, Carbon dioxide, Dry chemical powder or Alcohol resistant foam. Suitable extinguishing media must be evaluated based on the surrounding environment. 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 the gases produced by the explosion and combustion. Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable respiratory equipment. Collect contaminated water used to extinguish the fire separately. Do not discharge it into the sewer system. If feasible from a safety perspective, move undamaged containers from the area of immediate danger.

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:
Move away from the area surrounding the spill or release. Not smoking.

6.1.2 For emergency responders:
Eliminate all open flames and possible sources of ignition. Not smoking. Provide adequate ventilation. Evacuate the danger area and, if necessary, consult an expert. Wear personal protective equipment.

6.2. Environmental precautions

Contain spills with earth or sand.
If the product has entered a watercourse, sewers or has contaminated soil or vegetation, notify the authorities.
Dispose of the waste material in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 Containment:
Rapidly recover the product, wear a mask and protective clothing (for specifications refer to section 8.2. SDS)
Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert materia or sucked it.
Prevent it from entering the sewer system.

6.3.2 Cleaning up:

After wiping up, wash with water the area and materials involved

6.3.3 Other information:
Wash with plenty of water.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Apply legislation on occupational health and safety General recommendations on occupational hygiene: contaminated clothing should be changed before entering eating areas. Wash hands after handling. Do not eat, drink or smoke during use.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabelled containers.
Keep containers upright and safe by avoiding the possibility of falls or collisions.
Store in a cool and dry place, away from heat sources and direct exposure to sunlight.

7.3. Specific end use(s)

Industrial Manufacturing:
Handle with caution. Store in a well-ventilated place, away from heat sources, in the original tightly closed packaging.

Manufacture of food products:
Handle with caution. Store in a well-ventilated place, away from heat sources, in the original tightly closed packaging.

See the annex exposure scenario.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

==========
Related to contained substances:
Hydrogen peroxide:
TLV - TWA (Threshold Limit Value - Time Weighted Average) - Eight hours (ppm)/(mg/m³)
Australia: 1/1,4
Austria: 1/1,4
Belgium: 1/1,4
Canada – Ontario: 1/x
Canada – Québec: 1/1,4
Denmark: 1/1,4
Finland: 1/1,4
France: 1/1,5
Germany (DFG): 0,5/0,71
Germany (AGS): 0,5/0,71
Ireland: 1/1,5
Norway: 1/1,4
Poland: x/0,4

People's Republic of China: x/1,5
Singapore: 1/1,4
South Africa: 2/x
South Africa Mining: 1/1,5
South Korea: 1/x
Spain:1/1,4
Sweden: 1/1,4
Switzerland: 1/1,4
USA – NIOSH: 1/1,4
USA – OSHA: 1/1,4
United Kingdom: 1/1,4

TLV-STEL Threshold limit value − short-term exposure limit (ppm)/(mg/m³)
Austria: 2(1)/2,8(1) Remarks: (1) Ceiling limit value (5minutes)
Denmark: 2/2,8
Finland: 3(1)/4,2(1) Remarks: (1) 15 minutes average value
Germany (AGS): 0,5(1)/0,71(1) Remarks:(1) 15 minutes average value
Germany (DFG): 0,5(1)/0,71(1) Remarks:(1) 15 minutes average value
Ireland: 2(1)/3(1) Remarks: (1) 15 minutes reference period
Poland: x/0,8(1) Remarks: (1) 15 minutes average value
South Africa Mining:2(1)/3(1) Remarks: (1) 15 minutes average value
Sweden: 2(1)/3(1) Remarks: (1) 15 minutes average value
Switzerland: 2(1)/2,8(1) Remarks: (1) 15 minutes average value
United Kingdom: 2(1)/2,8(1) Remarks: (1) 15 minutes average value

- Substance: Hydrogen peroxide
DNEL
Local effects Long term Workers inhalation = 1,4 (mg/m3)
Local effects Long term Consumers inhalation = 0,21 (mg/m3)
Local effects Short term Workers inhalation = 3 (mg/m3)
Local effects Short term Consumers inhalation = 1,93 (mg/m3)
PNEC
Sweet water = 0,013 (mg/l)
sediment Sweet water = 0,047 (mg/kg/sediment)
Sea water = 0,013 (mg/l)
sediment Sea water = 0,047 (mg/kg/sediment)
STP = 4,66 (mg/l)
ground = 0,002 (mg/kg ground)

8.2. Exposure controls

Appropriate engineering controls:
Industrial Manufacturing:
No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

Manufacture of food products:
No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

8.2.2 Individual protection measures:

(a) Eye / face protection

Safety glasses with side protection for chemicals (EN166).

Face mask CEN: EN136

(b) Skin protection

(i) Hand protection
When handling the pure product, use chemical-resistant protective gloves (EN 374-1/EN374-2/EN374-3) or other protective equipment as instructed by the employer
Suitable gloves:

Butyl rubber: breakthrough time > 8h; glove thickness: 0.7 mm

Natural rubber: breakthrough time > 8h; glove thickness: 1 mm

Nitrile rubber: breakthrough time > 8h; glove thickness: 0.33 mm

(ii) Other
During work operations according to the instructions of the person in charge (employer, ..) wear protective clothing (generic/anti-acid work clothes, safety shoes or other equipment provided)

(c) Respiratory protection
Not required for normal use.
In case of inadequate ventilation or in case of emergency use of gas and vapour filter mask (EN14387) - ABEK-P3 filter

(d) Thermal hazards
No hazard to report

Environmental exposure controls:
Use according to good working practices and avoid to disperse the product into the environment.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Physical state	Liquid	
Colour	Colorless	
Odour	pungent	
Odour threshold	not determined as considered not relevant for the characterization of the product	
Melting point/freezing point	not determined as considered not relevant for the characterization of the product	
Boiling point or initial boiling point and boiling range	108 ° C	
Flammability	not determined as considered not relevant for the characterization of the product	
Lower and upper explosion limit	not determined as considered not relevant for the characterization of the product	
Flash point	not determined as considered not relevant for the characterization of the product	ASTM D92
Auto-ignition temperature	not determined as considered not relevant for the characterization of the product	

Physical and chemical properties	Value	Determination method
Decomposition temperature	not determined as considered not relevant for the characterization of the product	
pH	1.5-4 (20°C)	
Kinematic viscosity	1,249 mPas 20°C	
Solubility	not determined as considered not relevant for the characterization of the product	
Water solubility	Soluble	
Partition coefficient n-octanol/water (log value)	not determined as considered not relevant for the characterization of the product	
Vapour pressure	not determined as considered not relevant for the characterization of the product	
Density and/or relative density	1,13 ± 0.5 (20°C)	
Relative vapour density	not determined as considered not relevant for the characterization of the product	
Particle characteristics	not determined as considered not relevant for the characterization of the product	

9.2. Other information

9.2.1 Information with regard to physical hazard classes

Irrilevant

9.2.2 Other safety characteristics

Irrilevant

SECTION 10. Stability and reactivity

10.1. Reactivity

Strong oxidizing agent
Decomposes into water and oxygen
May cause ignition of combustible materials

10.2. Chemical stability

Stable under recommended storage and handling conditions.

10.3. Possibility of hazardous reactions

Possible dangerous reaction with reducing agents In the presence of Alkalis. In the presence of combustible materials.
Heavy metal compounds

10.4. Conditions to avoid

Keep away from heat sources. Unstable to heat or contamination. Release of oxygen gas may cause dangerous pressure.

10.5. Incompatible materials

Reducing agents.
Alkali.
Fuel material.
Heavy metal compounds

10.6. Hazardous decomposition products

Oxygen
Water
Steam

SECTION 11. Toxicological information

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

(a) acute toxicity:
ATE(mix) oral = 1193-1270 mg/kg Harmful product
ATE(mix) dermal = Not classified (no relevant component)
ATE(mix) inhal = 4.29 mg/l (mists, fumes and aerosols): Harmful by inhalation
(b) skincorrosion/irritation: based on the available data, the classification criteria are not met.
(c) serious eye damage/irritation: if brought into contact with the eyes, the product causes serious eye injuries,
(d) respiratoryorskinsensitisation: based on the available data, the classification criteria are not met.
(e) germ cell mutagenicity: based on the available data, the classification criteria are not met.
(f) carcinogenicity: based on available data, the classification criteria are not met
(g) eproductivetoxicity: based on available data, the classification criteria are not met
(h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met
(i) specific target organ toxicity (STOT) repeated exposure: based on available data, the classification criteria are not met
(j) aspiration hazard: based on available data, the classification criteria are not met

About components:

(a) acute toxicity:
Hydrogen peroxide:
Ingestion - LD50 rat (mg/kg/24h bw): 1193-1270 (Source: ECHA - Study Report 1996 - Note: 50% water solution - OECD Guideline 401)
Skin contact - LC50 rat /rabbit (mg/kg/24h bw): >2000
Inhalation - LC50 rat (mg/l/4h): > 0.17 mg/l - Duration: 4h - Source: ECHA - Study Report 1990 - Note: 50% water

solution - OECD Guideline 403 For mists, fumes and aerosols: 4.29 mg/l (point estimate of acute toxicity 1.5 mg/L)

(b) skincorrosion/irritation:
Hydrogen peroxide: Corrosive (Test: Skin corrosive - Route: Skin - Species: Rabbit Yes - Source: ECHA - Study Report 1990 - Note: 50 % water solution - OECD Guideline 404)
Hydrogen peroxide: Irritant (Test: Skin corrosive - Route: Skin - Species: Rabbit Yes - Source: ECHA - Study Report 1990 - Note: 50 % water solution - OECD Guideline 404)

(c) serious eye damage/irritation:
Hydrogen peroxide: Corrosive (Test: Eye Corrosive - Species: Rabbit Yes - Source: ECHA - Study Report 1985 - Notes: OECD Guideline 405)
Hydrogen peroxide: Irritant (Test: Eye Corrosive - Species: Rabbit Yes - Source: ECHA - Study Report 1985 - Note: OECD Guideline 405)

(d) respiratoryorskinsensitisation:
Hydrogen peroxide:
Based on available data, the classification criteria are not met.
Test: Skin sensitization - Species: Guinea pig - Source: ECHA - Study report 1953

(e) germ cell mutagenicity:
Hydrogen peroxide:
test: Mutagenesis - Species: Mouse - Source: ECHA - Study Report 1995 - Note: OECD Guideline 474

(f) carcinogenicity:
Hydrogen peroxide:
Based on available data, the classification criteria are not met.

(g) Reproductivetoxicity:
Hydrogen peroxide:
Based on available data, the classification criteria are not met.

(h) specific target organ toxicity (STOT) single exposure:
Hydrogen peroxide:
Toxic by single exposure to the respiratory tract via inhalation
Route: Inhalation - Species: Mouse = 665 mg/m3 - Source: ECHA - Study Report 2002 - Note: OECD Guideline 412

(i) specific target organ toxicity (STOT) repeated exposure
Hydrogen peroxide:
Based on available data, the classification criteria are not met.
Test: NOEL - Route: Oral - Species: Mouse = 300 ppm - Duration: 90 days - Source: ECHA - Study Report 1997 - Note: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

(j) aspiration hazard:
Hydrogen peroxide:
Not applicable

11.2. Information on other hazards

No data available.

11.2.1. Endocrine disrupting properties

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

SECTION 12. Ecological information

12.1. Toxicity

==========
Related to contained substances:
Hydrogen peroxide:
Acute toxicity - fish LC50 (mg/l/96h): 16.4 Phimephales promelas (Note: HP100% - US EPA, pH: 6.6-7.2)
Acute toxicity - crustaceans EC50 (mg/l/48h): 2.4 Daphnia pulex (Shurtleff 1989)
Acute toxicity - algae ErC50 (mg/l/72-96h): not available
Chronic toxicity - fish NOEC (mg/l): No reliable information is available on the long-term toxicity of hydrogen peroxide to fish. However, a long-term toxicity test on fish is not considered necessary.
Chronic toxicity - crustaceans NOEC (mg/l): 0.63 Daphnia magna
Chronic toxicity algae NOEC (mg/l): The acute toxicity of hydrogen peroxide to algae was tested in marine and freshwater species according to international guidelines. The study on the marine diatom Skeletonema costatum (Knight et al. 1997) is more reliable than that on the green alga Chlorella vulgaris (Walzer and Lotz 1991). The reliable study on the marine diatom produced a NOEC value of 0.63 mg/L, based on growth rate inhibition.
Microorganism toxicity: 4.66 mg/L
Acute toxicity M-factor = 1
Chronic toxicity M-factor = 1

The product is dangerous for the environment as it is toxic for aquatic organisms following acute exposure.

Use according to good working practices and avoid to disperse the product into the environment.

12.2. Persistence and degradability

Aerobic (OECD 209): >99% after 30 min

inherently biodegradable

12.3. Bioaccumulative potential

Octanol-water (log Pow) =-1.57
BCF: not available

12.4. Mobility in soil

Surface tension: 75.6 mN/m 20° C
log Koc: 0.2

12.5. Results of PBT and vPvB assessment

Not available

12.6. Endocrine disrupting properties

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

12.7. Other adverse effects

Nobody

Regulation (EC) No 2006/907 - 2004/648
The (I) surfactant (s) content (s) in this preparation complies (comply) with (i) the biodegradability criteria as laid down in Regulation CE/648/2004 on detergents. All data are held at the disposal of the competent authorities of Member States and will be provided, at their direct request or at the request of a detergent manufacturer, to those authorities.

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Recover if possible. Send to authorized disposal facilities or to incineration under controlled conditions. Operate according to local and national regulations. Additional information on disposal: Take all necessary measures to avoid waste production as far as possible. Analyze possible methods of upgrading or recycling. Do not discharge into drains or the environment; dispose of waste in an authorized waste collection point. Empty containers and packaging must be disposed of in accordance with local and national legislation in force.

SECTION 14. Transport information

14.1. UN number or ID number

ADR/RID/IMDG/ICAO-IATA: 2014

If subject to the following characteristics is ADR exempt:
Combination packagings: per inner packaging 1 L per package 30 kg
Inner packaging placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 1 L per package 20 kg

14.2. UN proper shipping name

ADR/RID/IMDG: PEROSSIDO DI IDROGENO IN SOLUZIONE ACQUOSA contenente almeno il 20% ma al massimo il 60% di perossido di idrogeno (stabilizzata se necessario)
ADR/RID/IMDG: HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 20% but not more than 60% hydrogen peroxide (stabilized as necessary)
ICAO-IATA: HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 20% but not more than 60% hydrogen peroxide (stabilized as necessary)

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 5.1
ADR/RID/IMDG/ICAO-IATA: Label : 5.1 + 8
ADR: Tunnel restriction code : E
ADR/RID/IMDG/ICAO-IATA: Limited quantities : 1 L
IMDG - EmS : F-H, S-Q

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: II

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is not environmentally hazardous

IMDG: Marine polluting agent : No

14.6. Special precautions for user

The transport must be carried out by authorized vehicles for the transport of dangerous goods in accordance with the requirements of the applicable Edition of the agreement A.D.R. and national provisions. The transport must be carried out in the original packaging and in packages that are made from materials resistant to content and not likely to generate with this dangerous reactions. The process of loading and unloading of dangerous goods have received adequate training on the risks presented by prepared and on possible procedures to be taken in the event of emergency situations

14.7. Maritime transport in bulk according to IMO instruments

Transport in bulk is not foreseen

SECTION 15. Regulatory information

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

Restrictions relating to the product or the substances contained (Annex XVII EC Reg. 1907/2006): not applicable
Substances in Candidate list (art. 59 EC Reg. 1907/2006): the product does not contain SVHC in percentage = a 0.1 %.

Regulation (EU) No 1357/2014 - waste: HP4 - Irritant — skin irritation and eye damage
Seveso category: n.a.

Regulation (EC) 648/04: see point 2.2
Regulation (EU) 528/2012: not applicable

15.2. Chemical safety assessment

Chemical safety assessment was carried out:
Hydrogen peroxide
Mixture exposure scenarios attached

SECTION 16. Other information

16.1. Other information

Description of hazard statements set out in paragraph 3
H271 = May cause fire or explosion; strong oxidiser.
H302 = Harmful if swallowed.
H314 = Causes severe skin burns and eye damage.
H332 = Harmful if inhaled.
H335 = May cause respiratory irritation.
H412 = Harmful to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:
H302 - Harmful if swallowed. Classification procedure: Calculation method (Similar mixture)

H318 - Causes serious eye damage. Classification procedure: Calculation method (Similar mixture)
H332 - Harmful if inhaled. Classification procedure: Calculation method (Similar mixture)
H412 - Harmful to aquatic life with long lasting effects. Classification procedure: Calculation method

Main normative references:
Reg. (CE) n. 1907 del 18/12/06 REACH (Registration, Evaluation and Authorisation of CHemicals) et seq.
Reg. (CE) 1272/2008 CLP (Classification Labelling and Packaging) et seq.
Directive 2012/18/EU (on the control of major-accident hazards involving dangerous substances) et seq.

Training required: This document must be submitted to the employer to determine the possible need for appropriate training for workers to ensure protection of human health and the environment.

n.a.: not applicable
n.d.: not available
ADR: Accord europèen relative au transport International des merchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ATE: Acute Toxicity Estimat
BFC: BioconCentration Factor
BOD: Biochemical Oxigen Demand
CAS: Chemical Abstract Service number
CAP: Centre AntiPoison
CE/EC number EINECS (European Inventory of existing Commercial Substances) e ELINCS (European List of notified Chemical Substances)
CL50/LC50: Lethal Concentration 50
DL50/LD50: Lethal Dose 50
COD: Chemical Oxygen Demand
DNEL: Derived No Effect Level
EC50: half maximal Effective Concentration
ERC: Enviroment Release Classes
EU/UE: European Union
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods code
Kow: Octanol water partition coefficient
NOEC: No Observed Effect Concentration
OEL: Occupational Exposure Limit
PBT: Persistent Bioaccumulative and Toxic
PC: Product Categories
PNEC: Predicted No Effect Concentration
PROC: Process Categories
RID: Règlement concernent le transport International ferroviaire des merchandises dangereuses (Regulations concerning International rail transport of dangerous goods)
STOT: Target Organ Systemic Toxicity
STOT (RE): Repeated Exposure
STOT (SE): Single Exposure
STP: Sewage Treatment Plants
SU: Sector of Use
SVCH: Substance of Very High Concern
TLV: Threshold Limit Value
vPvB: Very Persistent Very Bioaccumulative

References and Sources:
- ECHA Registered Substances:
https://echa.europa.eu/web/guest/information-on-chemicals/registered-substances

- SDS raw material supplier

- GESTIS International Limit Value: http://limitvalue.ifa.dguv.de

This msds was made in good faith by technical Office on the basis of the information available at the date of the last revision. The person in charge must regularly inform the employees about the specific risks they encounter when using this substance/product. The information contained here relate only to the substance/the preparation indicated and may not apply if the product is used improperly or in combination with others. Nothing contained herein shall be construed as a guarantee, either express or implied. It is the responsibility of the user to ensure the opportunities and completeness of the information contained herein for their own particular use.

Changes to the previous edition: first issued

SUMI

Safe Use of Mixtures Information

AISE_SUMI_IS_4_2

Version 1.1, August 2018

Industrial uses; Automated task; Semi-automated task; Dedicated equipment

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

General description of the process covered

The SUMI applies to industrial uses where products are used in closed process where opportunity for exposure arises. This Safe Use Information is based on the **AISE_SWED_IS_4_2**.

Operational Conditions

Maximum duration	480 minutes per day.
Range of application / Process conditions	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	Wear suitable gloves. See section 8 of the SDS of this product for specifications. 
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

Don't eat or drink. **Don't smoke.** **Don't use in proximity of open flame.**	
Wash hands after use. **Avoid contact with damaged skin.** **Do not mix with other products.**	
Spillage instructions	Dilute with fresh water and mop up.
Hygiene practices	Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).

Disclaimer

This is a document for communicating generic conditions of safe use of a product. It is the responsibility of the formulator to link this SUMI to the SDS of a specific product that he is selling.
If a SUMI (or associated SWED) code is mentioned in the SDS of a product, the formulator of that product declares that all substances in the mixture are present in such concentration, that the use of the product within the conditions of the SUMI is safe. When available, this safe use is ensured by evaluating the results of the chemical safety assessments as performed by the raw material suppliers. When no chemical safety assessment has been carried out by the supplier for an ingredient that contributes to the classification of the mixture, the formulator has performed a safety assessment himself.
Following Occupational Health legislation, the employer of workers that use products that are assessed as safe following SUMI conditions remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product.
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SUMI

Safe Use of Mixtures Information

AISE_SUMI_IS_8b_1

Version 1.1, August 2018

Transfer and dilution of concentrated product by using dedicated dosing system

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

General description of the process covered

This SUMI applies to industrial uses where products are transferred to or diluted in a dedicated dosing system. This Safe Use Information is based on the **AISE_SWED_IS_8b_1_L** and **AISE_SWED_IS_8b_1_S**

Operational Conditions

Maximum duration	60 minutes per day.
Range of application / Process conditions	Indoor Use.
	Process carried out at room temperature.
	In case of dilution, tap water at a maximum temperature of 45°C is used.
Air exchange rate	Provide a basic standard of general ventilation (1 to 3 air changes per hour). No LEV required.

Risk Management Measures

Measures related to personal protective equipment (PPE), hygiene and health evaluation	Wear suitable gloves. See section 8 of the SDS of this product for specifications. 
	Training of workers in relation to proper use and maintenance of PPEs must be ensured.
Environmental measures	Prevent that undiluted product reaches surface waters.
	If appropriate AISE SPERC 8a.1.a.v2 may apply: wide dispersive use resulting in release to municipal sewage treatment plant.

Additional good practice advice

Don't eat or drink. **Don't smoke.** **Don't use in proximity of open flame.**	
Wash hands after use. **Avoid contact with damaged skin.** **Do not mix with other products.**	
Spillage instructions	Dilute with fresh water and mop up.
Hygiene practices	Follow the product instructions as specified on the label or in the product information sheet and use good occupational hygiene practices as specified in Section 7 of the product SDS.

Additional information depending on product composition

The label and (when required) the Safety Data Sheet contain additional, product specific information crucial for working safely with mixtures. Please refer to the product label and SDS for information including, but not limited to: product hazard classification, potentially allergenic fragrances, notable ingredients and threshold limit values (when available).