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

1.1. Product identifier

Product name : ACID JD
Product code: refer to sales department

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

Descaling acidic detergent
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

AEB SpA - Via Vittorio Arici 104 S.Polo - 25134 Brescia (BS) Italy
Tel. +39.030.2307.1 Fax +39.030.2307281
E-mail: info@aeb-group.com - Internet: www.aeb-group.com
E-mail tecnico competente/technical dept.: sds@aeb-group.com

AEB USA
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Email: info@aebusa.com - Internet: www.aeb-group.com

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Email: info@aeb.co.za - Internet: www.aeb-group.com

AEB OCEANIA PTY LTD
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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

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

Pictograms:
GHS05, GHS06

Hazard Class and Category Code(s):
Met. Corr. 1, Skin Corr. 1A, Eye Dam. 1, Acute Tox. 3

Hazard statement Code(s):
H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.
H331 - Toxic if inhaled.

The product can be corrosive to metals
Toxic product: do not inhale
Corrosive product: causes severe skin burns and eye damage.
If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

2.2. Label elements

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

Pictogram, Signal Word Code(s):
GHS05, GHS06 - Danger

Hazard statement Code(s):
H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H331 - Toxic if inhaled.

Supplemental Hazard statement Code(s):
EUH071 - Corrosive to the respiratory tract.

Precautionary statements:
Prevention
P260 - Do not breathe vapours/spray.
P280 - Wear protective gloves/clothing and eye/face protection
Response
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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.

Contains: Nitric acid

Contains (Reg.CE 648/2004): /

2.3. Other hazards

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

Do not ingest. Keep out of reach of children.

SECTION 3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
Nitric acid B	>= 50 < 65%	EUH071; Ox. Liq. 2, H272; Met. Corr. 1, H290; Skin Corr. 1A, H314; Acute Tox. 3, H331 Limits: Skin Corr. 1A, H314 %C >=20; Skin Corr. 1B, H314 5<= %C <20; Ox. Liq. 2, H272 %C >=99; Ox. Liq. 3, H272 65<= %C <99; ATE(mix) inhal = 2,7mg/l/4 h	007-004-00-1	7697-37-2	231-714-2	01-2119487297-23-XXXX
Urea substance for which there are Community workplace exposure limits	>= 0,1 < 1%			57-13-6	200-315-5	01-2119463277-33-XXXX

SECTION 4. First aid measures

4.1. Description of first aid measures

In case of skin contact: immediately remove contaminated clothing, wash immediately with plenty of water and soap. SEE A DOCTOR IMMEDIATELY.
In case of contact with the eyes: rinse with water for an appropriate amount of time and keeping the eyelids open, then immediately consult an ophthalmologist. Protect the uninjured eye.
In case of ingestion: DO NOT induce vomiting.
In case of inhalation: in case of irregular or absent breathing, give artificial respiration. In case of inhalation seek medical advice immediately and show him the packaging or label.

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

Inhalation produces a burning sensation, cough, headache, difficulty breathing, nausea and sore throat.
Contact with the skin produces redness, burns and pain.
Contact with eyes produces severe redness, pain and deep burns.
Ingestion causes severe burns to the lips, mouth, throat and esophagus, with stomach upset and abdominal pain. If ingested it can cause severe abdominal pain, vomiting, diarrhea and collapse. Possibility of plomonal edema

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

In case of accident or if you feel unwell, consult a doctor immediately (if possible show the instructions for use or the safety data sheet).

Treatment
No specific antidotes are known in symptomatic treatment (decontamination, vital functions). If necessary, breathe in oxygen. After exposure to acid or NOX fumes, the affected person should be kept under medical observation for at least 48 hours to avoid delayed lung problems. For the prophylaxis of pulmonary edema: aerosol of corticosteroids.

SECTION 5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: water, carbon dioxide (CO_2). Suitable extinguishing media must be evaluated based on the surrounding environment.
Extinguishing media which must not be used for safety reasons: chemical powders or foams. Do not smother the fire with steam or sand

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. If exposed to vapors / dusts / aerosols wear respiratory equipment.

6.1.2 For emergency responders:
Wear personal protective equipment. If exposed to vapors / dusts / aerosols wear suitable respiratory equipment.
Consult the protective measures set out in points 7 and 8.

6.2. Environmental precautions

Prevent penetration into the soil / subsoil. Prevent run-off into surface water or the sewer system. Retain contaminated washing water and eliminate it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Material suitable for collection: absorbent, organic material, sand.

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

Avoid contact with skin and eyes, inhalation of vapors and mists. Use localized ventilation system.
Do not use empty containers before they have been cleaned.Before the transfer operations make sure that there are no incompatible residual materials in the containers.
Contaminated clothing must be replaced before entering the dining areas. At work do not eat or drink.
See also paragraph 8 for recommended protective devices.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container tightly closed.
Do not store in open or unlabeled containers.

Keep the containers in a vertical and safe position avoiding the possibility of falls or collisions.

Store in a cool and dry place, away from any source of heat and direct exposure to sunlight

7.3. Specific end use(s)

Industrial Manufacturing:
Handle with extreme caution. Store in a well-ventilated place away from heat sources (7-30 ° C) in the original, tightly closed container

Manufacture of food products:
Handle with extreme caution. Store in a well-ventilated place away from heat sources (7-30 ° C) in the original, tightly closed container

See the annex exposure scenario.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

==========
Related to contained substances:
Nitric acid:
Limit value - Eight hours
(ppm)/(mg/m³)

Australia: 2/5.2
Austria: x/x
Belgio: x/x
Canada – Ontario: 2/x
Canada - Québec: 2/5.2
Denmark: 2/5
European Union: x/x
Finland: 0.5/1.3
France: x/x
Germany (AGS): x/x
Hungary: x/x
Ireland: x/x
Italy: x/x
Japan – JSOH: 2/5.2
Latvia: 0.78/2
New Zealand: 2/5.2
Poland: x/1.4
Romania: x/x
Singapore: 2/5.2
South Korea: 2/5
Spain: x/x
Sweden: 0.5/1.3
Switzerland: 2/5
The Netherlands: x/x
Turkey: x/x
USA - NIOSH: 2/5
USA – OSHA: 2/5
United Kingdom: x/x

Slovakia: x/x

Limit value - Short term
(ppm)/(mg/m³)

Australia: 4/10
Austria: 1/2.6
Belgio: 1/2.6
Canada – Ontario: 4/x
Canada - Québec: 4/10
Denmark: 4/10
European Union: 1/2.6
Finland: 1 (1)/2.6 (1)
France: 1/2.6
Germany (AGS):1 (1)/2.6 (1)
Hungary: x/2.6
Ireland: 1 (1)/2.6 (1)
Italy: 1/2.6
Japan – JSOH: x/x
Latvia: 1 (1)/2.6 (1)
New Zealand: 4/10
Poland: x/2.6
Romania: 1(1)/2,5(1)
Singapore: 4/10
South Korea: 4/10
Spain: 1/2.6
Sweden: 1 (1)/2.6 (1)
Switzerland: 2/5
The Netherlands: x/1.3
Turkey: 1 (1)/2.6 (1)
USA - NIOSH: 4 (1)/10 (1)
USA – OSHA: x/x
United Kingdom: 1/2.6
Slovakia: 1/2.6
Remarks
European Union: Bold-type: Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] ~ (for references see bibliography)
Finland - Belgium - Germany (AGS)- Latvia - Sweden - Turkey - USA - NIOSH: : (1) 15 minutes average values
France: Italic type: Indicative statutory limit values
Ireland: (1) 15 minutes average period
Poland: nitric acid (V)

Tipo OEL: UE - STEL: 2.6 mg/m3, 1 ppm
Tipo OEL: ACGIH - TWA(8h): 2 ppm - STEL: 4 ppm - Note: URT and eye irr, dental erosion

Argentina: CMP 2 ppm - CMP/CP-CMC-C 4 ppm - PM 63,02 (irritation, corrosion, edema polmon)
Czech Republic: PEL 1 mg/m3 - NPK-P 2,5 mg/m3 - Poznámky: x - Prepocet: 0,382
Portugal : 8 horas x/x Curta duração: 2,6 mg/m3/ 1 ppm

Urea:
Limit value - Eight hours
(ppm)/(mg/m³)

Latvia: -/10
People's Republic of China: -/5
OEL: ACGIH - TWA -/10

Limit value - Short term

(ppm)/(mg/m³)

People's Republic of China: -/10(1)

Remarks:
People's Republic of China:(1) 15 minutes average value

- Substance: Nitric acid
DNEL
Local effects Long term Workers inhalation = 1,3 (mg/m3)
Local effects Long term Consumers inhalation = 0,65 (mg/m3)
Local effects Short term Workers inhalation = 2,6 (mg/m3)
Local effects Short term Consumers inhalation = 1,3 (mg/m3)

- Substance: Urea
DNEL
Systemic effects Long term Workers inhalation = 292 (mg/m3)
Systemic effects Long term Workers dermal = 580 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 125 (mg/m3)
Systemic effects Long term Consumers dermal = 580 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 42 (mg/kg bw/day)
Systemic effects Short term Workers inhalation = 292 (mg/m3)
Systemic effects Short term Workers dermal = 580 (mg/kg bw/day)
Systemic effects Short term Consumers inhalation = 125 (mg/m3)
Systemic effects Short term Consumers dermal = 580 (mg/kg bw/day)
Systemic effects Short term Consumers oral = 42 (mg/kg bw/day)
PNEC
Sweet water = 0,047 (mg/l)

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
When handling the pure product use safety goggles (EN 166).

(b) Skin protection

(i) Hand protection
Neoprene rubber gloves (EN347).
Materials also suitable for direct and prolonged contact (Recommendations: protection factor 6, corresponding to > 480 minutes of permeation time according to EN 374): chloroprene rubber (CR) - 0.5 mm thickness; butyl rubber - 0.7 mm thickness fluorinated elastomer; neoprene, breakthrough time> 480 min, thickness 0.9 mm; PTFE fluorine elastomers, breakthrough time> 480 min, thickness 0.5 mm
Gloves should be replaced immediately if any signs of wear are observed.

(ii) Other
When handling the pure product, wear full protective clothing (generic workwear / antacid, safety shoes S3-EN ISO 20345) or other protective equipment, according to the instructions of the employer

(c) Respiratory protection
Not needed for normal use.
In case of emergency, gas and vapor filter mask (EN14387)

In case of low concentrations or short actions: filter for inorganic acid gases / vapors such as eg. SO2, HCl (eg EN 14387 Type E), filter for gases / vapors of inorganic compounds (eg EN 14387 Type B).

In case of high concentrations or in case of prolonged action: self-contained breathing apparatus

(d) Thermal hazards
No hazard to report

8.2.3 Environmental exposure controls:
Avoid infiltration into the soil.
Due to its acidity, it is dangerous for aquatic organisms.
Product should not be allowed to enter drains, drains or water courses

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	Clear liquid	
Colour	Colorless	
Odour	not determined as it is considered not relevant for the characterization of the product	
Odour threshold	not determined as it is considered not relevant for the characterization of the product	
pH	<2 (20 ° C; 3% sol.); <2 (20 ° C; sol. 100%)	
Melting point/freezing point	not determined as it is considered not relevant for the characterization of the product	
Initial boiling point and boiling range	not determined as it is considered not relevant for the characterization of the product	
Flash point	not determined as it is considered not relevant for the characterization of the product	
Evaporation rate	not determined as it is considered not relevant for the characterization of the product	
Flammability (solid, gas)	not determined as it is considered not relevant for the characterization of the product	
Upper/lower flammability or explosive limits	not determined as it is considered not relevant for the characterization of the product	
Vapour pressure	not determined as it is considered not relevant for the characterization of the product	
Vapour density	not determined as it is considered not relevant for the characterization of the product	
Relative density	1.30 ± 0.05 (20 ° C)	
Solubility	in water	
Water solubility	miscible in all proportions	
Partition coefficient: n-octanol/water	not determined as it is considered not relevant for the characterization of the product	

Physical and chemical properties	Value	Determination method
Auto-ignition temperature	not determined as it is considered not relevant for the characterization of the product	
Decomposition temperature	not determined as it is considered not relevant for the characterization of the product	
Viscosity	not determined as it is considered not relevant for the characterization of the product	
Explosive properties	not determined as it is considered not relevant for the characterization of the product	
Oxidising properties	not determined as it is considered not relevant for the characterization of the product	

9.2. Other information

No data available.

SECTION 10. Stability and reactivity

10.1. Reactivity

Non-pyrophoric acid

10.2. Chemical stability

Stable at room temperature and in normal conditions of use.
Corrosive to cement.
Non-corrosive towards stainless steel, antacid stoneware, glass.

10.3. Possibility of hazardous reactions

Reacts exothermically with water.
Reacts vigorously with reducing agents, strong bases, organic materials, hypochlorite. Reaction with the most common metals can release oxygen.
Possible dangerous reaction with combustible materials

10.4. Conditions to avoid

Direct heat sources and the provisions of 10.3

10.5. Incompatible materials

Reducing agents
Alkalis
Metals
Combustible materials

10.6. Hazardous decomposition products

Nitrogen oxides (NOx)

SECTION 11. Toxicological information

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

ATE(mix) inhal = 5,3 mg/l/4 h

(a) acute toxicity: Toxic product: do not inhale
Nitric acid: Ingestion - LD50 rat (mg / kg / 24h bw): nd
Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): nd
Inhalation - LD50 rat (mg / l / 4h):> 2.65
Urea: Inhalation - LD50 rat (mg / kg / 24h bw): 8471
Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): na
Inhalation - LD50 rat (mg / l / 4h): n..d.
(b) skincorrosion/irritation: Corrosive product: causes severe skin burns and eye damage.
Nitric acid: Corrosive
Urea: Not corrosive
Nitric acid: Irritating
Urea: Irritating to the skin - Species: Rabbit No - Source: Study report (2003) - Notes: In vivo test, OECD Guideline 404,
(c) serious eye damage/irritation: Corrosive product: causes severe skin burns and eye damage. - If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.
Nitric acid: Corrosive
Urea: Not corrosive
Nitric acid: irritating
Urea: Test: Irritating to eyes - Species: Rabbit No - Source: Study report ((1988) - Notes: In vivo test, OECD Guideline 405
(d) respiratoryorskinsensitisation: Nitric acid: Not available
Urea: Not sensitizing
(e) germ cell mutagenicity: Nitric acid: Not mutagenic
Urea: Not mutagenic
(f) carcinogenicity: Nitric acid: Non-conclusive data
Urea: Not carcinogenic
(g) eproductivetoxicity: Nitric acid: Non-toxic for reproduction
Urea: Not toxic
(h) specific target organ toxicity (STOT) single exposure: Nitric acid: Not available
Urea: Not toxic
(i) specific target organ toxicity (STOT) repeated exposureNitric acid: Not available
Urea: Not toxic
(j) aspiration hazard: Nitric acid: Not available
Urea: Not available

11.2. Information on other hazards

No data available.

SECTION 12. Ecological information

12.1. Toxicity

==========
Related to contained substances:
Nitric acid:
Acute toxicity - LC50 fish (mg / l / 96h): 4650
Acute toxicity - EC50 crustaceans (mg / l / 48h): Median lethal pH (48h) 4.4-4.7 for Ceriodaphnia dubia (US EPA guideline). This study shows that the pH rather than the anion (nitrate) is causing the toxic effects in daphnids. This is confirmed by two additional studies with sodium nitrate (24h EC50 8609 mg / L for Daphnia magna, similar to OECD TG 202) and potassium nitrate (48h EC50 490 mg / L for Daphnia magna, no guideline followed). The read-across rationale can be found in the category approach document in Section 13 of IUCLID and is fully incorporated in the CSR.
Acute toxicity ErC50 algae (mg / l / 72-96h): nd
C(E)L50 (mg/l) = 4650

Urea:
Acute toxicity - LC50 (mg / l / 96h):> 6810
Acute toxicity - EC50 crust (mg / l / 48h): 20608
Acute algae ErC50 (mg / l / 72-96h): nd
Chronic toxicity - NOEC fish (mg / l): 200 (1wk)
Chronic toxicity - NOEC crustaceans (mg / l): na
Chronic NOE toxicity (mg / l): nd

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

12.2. Persistence and degradability

==========
Related to contained substances:
Nitric acid:
Not available

Urea:
It is not easily biodegradable

12.3. Bioaccumulative potential

==========
Related to contained substances:
Nitric acid:
Not bioaccumilable

Urea:
Not bioaccumulable

12.4. Mobility in soil

==========
Related to contained substances:
Nitric acid:
Not available

Urea:

Not available

12.5. Results of PBT and vPvB assessment

No PBT/vPvB ingredient is present

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No adverse effects

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

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.
Recover if possible. Operate according to local or national regulations

SECTION 14. Transport information

14.1. UN number or ID number

ADR/RID/IMDG/ICAO-IATA: 3264

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: LIQUIDO INORGANICO CORROSIVO, ACIDO, N.A.S. (Acido nitrico in miscela)
ADR/RID/IMDG: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid in mixture)
ICAO-IATA: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid in mixture)

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 8
ADR/RID/IMDG/ICAO-IATA: Label : 8
ADR: Tunnel restriction code : E
ADR/RID/IMDG/ICAO-IATA: Limited quantities : 1 L
IMDG - EmS : F-A, S-B

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 contained substances (All. XVII Reg. EC 1907/2006): not applicable
Substances in Candidate List (art. 59 Reg. EC 1907/2006): the product does not contain SVHC
Substances subject to authorisation (Ann. XIV Reg. CEC 1907/2006): the product does not contain SVHC
Reg. EC 648/04: see 2.2
Reg. (EU) n. 1169/2011: see 2.2
Reg (UE) 528/2012: see.to 2.2
Seveso category: H2 - ACUTE TOXIC
REGULATION (EU) No 1357/2014 - waste: HP8 - Corrosive

15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

SECTION 16. Other information

16.1. Other information

Points modified compared to previous release: 2. Hazard identification 3. information on ingredients 4.1. Description of first aid measures, 4.2. Most important symptoms and effects, both acute and delayed, 4.3. Indication of any immediate medical attention and special treatment needed, 5.1. Extinguishing media, 5.2. Special hazards arising from the substance or mixture, 5.3. Advice for firefighters, 6.1. Personal precautions, protective equipment and emergency procedures, 6.3. Methods and material for containment and cleaning up, 7.1. Precautions for safe handling, 7.3. Specific end use(s), 8.1. Control parameters, 8.2. Exposure controls, 10.1. Reactivity, 10.2. Chemical stability, 10.3. Possibility of hazardous reactions, 10.4. Conditions to avoid, 10.5. Incompatible materials, 10.6. Hazardous decomposition products,

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008, 12.6. Endocrine disrupting properties, 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Description of hazard statements set out in paragraph 3
H272 = May intensify fire; oxidiser.
H290 = May be corrosive to metals.
H314 = Causes severe skin burns and eye damage.
H331 = Toxic if inhaled.

Classification based on data of all mixture components

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.
Regulation (EC) n. 648 of 31/03/04 (on detergents) et seq.
Regulation (UE) n. 1169/2011 (on the provision of food information to consumers)
Directive 2012/18/EU (on the control of major-accident hazards involving dangerous substances) et seq.
Regulation (UE) 528/2012 (Biocides) et seq.

Procedure used to classify under CLP mixture (Reg . EC 1272/2008):

Physical hazards: On the basis of experimental data
H314 Skin. Corr. 1A: On the basis of experimental data / Calculation Method
Other hazards: Calculation Method

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 supplier
• GESTIS DNEL Database: http://www.dguv.de/ifa/gestis/gestis-dnel-datenbank/index-2.jsp
• GESTIS International Limit Value: http://limitvalue.ifa.dguv.de

This msds was made in good faith by AEB 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.

*** this tab annuls and replaces any previous edition. (IIXX)

Changes to the previous edition: issued in according with Reg. (UE) 878/20

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).

SUMI

Safe Use of Mixtures Information

AISE_SUMI_IS_13_3_G

Version 1.1, August 2018

Industrial uses; Treatment of articles by dipping or pouring

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 articles are treated by dipping or pouring. This Safe Use Information is based on the **AISE_SWED_IS_13_3**.

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 and eye protection. 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).

WORKING ISTRUCTION TABLE

IMPROVEMENT THROUGH BIOTECHNOLOGY

This tab provides instructions for appropriate and safe use of products and proper management of emergency situations for cleaning staff/users.

Attached to MSDS rel#6 del 02/17/20

Use description	Use in batch and other process (synthesis) where opportunity for exposure arises [PROC4]; Transfer of substance or mixture (charging and discharging) at dedicated facilities [PROC8b]; Treatment of articles by dipping and pouring [PROC13]
Product name	**ACID JD**
Classification of the product (100%)	H290 - May be corrosive to metals. H314 - Causes severe skin burns and eye damage. H318 - Causes serious eye damage. H331 - Toxic if inhaled. EUH071 - Corrosive to the respiratory tract.
Classification of the diluted product (maximum use concentration)	At maximux concentration of use (3%) the product is classified: H314 - Causes severe skin burns and eye damage. H318 - Causes serious eye damage. EUH071 - Corrosive to the respiratory tract.
Handling of the product (100%)	Avoid contact and inhalation of vapors Wear protective gloves/protective clothing/eye protection/face protection. At work do not eat or drink.
Handling of the diluted product	Avoid contact and inhalation of vapors Wear protective gloves/protective clothing/eye protection/face protection. At work do not eat or drink.
DPI required **concentrated product (racking, concentrated use, spillage…)**	Chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3), safety glasses (EN 166).
Diluited product	Chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3), safety glasses (EN 166).

In case of emergency (accidents involving exposure to the product)	Immediately inform the customer. Immediately inform the employer. Contact Poisons Centres tel. number in 1.4 section of the MSDS
Accidental release large quantities measures: concentrated product	Wear gloves,mask, glasses and protective clothing (for specifications refer to section 8.2 . SDS). Possibly absorb it with inert materia or sucked it. After wiping up, wash with water the area and materials involved
Diluited product	Wear gloves,mask, glasses and protective clothing (for specifications refer to section 8.2 . SDS). Possibly absorb it with inert materia or sucked it. After wiping up, wash with water the area and materials involved
Storage of the product	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.
In case of accidents, emergency or fire	Immediately inform the customer. Follow company emergency instruction.