

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/15/2017

Version 1

Reviewed on 06/15/2017

1 Identification

- **Product identifier**
- **Trade name: Alfa P-Scale**
- **Article number:** 3284000602
- **Application of the substance / the mixture**
Deliming agent
Corrosion inhibitors
- **Details of the supplier of the safety data sheet**
- **Supplier:**
Alfa Laval Lund AB
Box 74
SE-221 00 Lund
Sweden
+46 46 36 65 00
info.se@alfalaval.com
- **Information department:**
For additional questions regarding safety data sheets please contact your local Alfa Laval Sales Company which you find on www.alfalaval.com or in safety data sheet under section 16: Other Informaion
- **Emergency telephone number:** US and Canada: 911

2 Hazard(s) identification

- **Classification of the substance or mixture**
Skin Corr. 1C H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**

GHS05
- **Signal word** Danger
- **Hazard statements**
H314 Causes severe skin burns and eye damage.
- **Precautionary statements**
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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.
P310 Immediately call a POISON CENTER/doctor.
P337+P313 If eye irritation persists: Get medical advice/attention.
P405 Store locked up.

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Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 5329-14-6	sulphamidic acid Skin Irrit. 2, H315; Eye Irrit. 2A, H319	50-100%
CAS: 77-92-9	citric acid Eye Irrit. 2A, H319	25-50%
CAS: 95-14-7	Benzotriazol (in nicht atemberarer Form) Acute Tox. 4, H302	0.1-≤2.5%

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Wash contaminated clothing before reuse.
In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Seek immediate medical advice.
Rinse opened eye for several minutes under running water.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

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5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Not applicable.
- **Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
Nitrogen oxides (NO_x)
Sulphur dioxide (SO₂)
Sulphur trioxide (SO₃) or SO₃-mist
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
Suppress gases/fumes/haze with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Avoid formation of dust.
Avoid contact with spilled material.
Use only in well-ventilated areas.
See Section 8 for information on personal protection equipment.
Do not breathe vapour.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Send for recovery or disposal in suitable receptacles.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· PAC-1:		
CAS: 5329-14-6	sulphamidic acid	9.5 mg/m ³
· PAC-2:		
CAS: 5329-14-6	sulphamidic acid	100 mg/m ³
· PAC-3:		
CAS: 5329-14-6	sulphamidic acid	630 mg/m ³

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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
When using do not eat, drink or smoke.
Prevent formation of dust.
See Section 8 for information on personal protection equipment.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in dry conditions.
Protect from heat and direct sunlight.
Protect from frost.
- **Storage class:** 8B
- **Specific end use(s)**
Deliming agent
Corrosion inhibitors

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Use only in well-ventilated areas.
In case of insufficient ventilation, wear suitable respiratory equipment.
- **Breathing equipment:** Filter P2
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Acid resistant gloves

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Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Nitrile rubber, NBR

Synthetic gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Face protection



Tightly sealed goggles

· **Body protection:** Acid resistant protective clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· **Form:** Solid material

· **Color:** White

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value at 20 °C (68 °F):** <1.2

· **Change in condition**

· **Melting point/Melting range:** Undetermined.

· **Boiling point/Boiling range:** Undetermined.

· **Flash point:** 71 °C (160 °F)

· **Flammability (solid, gaseous):** Not determined.

· **Ignition temperature:** 485 °C (905 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:** 0.0 g/l

· **Lower:** Not determined.

· **Upper:** Not determined.

· **Vapor pressure:** Not applicable.

· **Density at 20 °C (68 °F):** 1-1.2 g/cm³ (8.345-10.0 lbs/gal)

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· Vapor density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water at 20 °C (68 °F):	250 g/l
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
Organic solvents:	0.0 %
VOC content:	0.0 g/l / 0.00 lb/gl
Solids content:	100.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability** Stable at ambient temperature.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
Reacts with alkali (lyes).
Reacts with halogenated compounds.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Sulphur trioxide (SO₃) or SO₃-mist

11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

CAS: 5329-14-6 sulphamidic acid

Oral	LD50	3160 mg/kg (rat)
	LDLo	1450 mg/kg (rat) (LD50)

CAS: 77-92-9 citric acid

Oral	LD50	5040 mg/kg (mouse)
------	------	--------------------

CAS: 95-14-7 Benzotriazol (in nicht atemberer Form)

Oral	LD50	560 mg/kg (rat) (LD50)
------	------	------------------------

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:**
Irritating effect.
Risk of serious damage to eyes.
- **Sensitization:** No sensitizing effects known.

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· Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

· Carcinogenic categories**· IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

· Toxicity

CAS: 5329-14-6 sulphamidic acid

LC50 | 70.3 mg/L (Fish) (OECD)

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Harmful to fish

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Harmful to aquatic organisms

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· Waste treatment methods

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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- **Uncleaned packagings:**
- **Recommendation:**
Packagings that cannot be cleansed are to be disposed of in the same manner as the product.
Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|----------------------------------|----------------------------|
| · UN-Number | |
| · DOT, ADR, IMDG, IATA | UN2967 |
| · UN proper shipping name | |
| · DOT | Sulfamic acid mixture |
| · ADR | 2967 Sulfamic acid mixture |
| · IMDG, IATA | SULPHAMIC ACID mixture |

· **Transport hazard class(es)**

· **DOT**



- | | |
|----------------|------------------------|
| · Class | 8 Corrosive substances |
| · Label | 8 |

· **ADR, IMDG, IATA**



- | | |
|----------------|------------------------|
| · Class | 8 Corrosive substances |
| · Label | 8 |

· **Packing group**

- | | |
|-------------------------------|-----|
| · DOT, ADR, IMDG, IATA | III |
|-------------------------------|-----|

· **Environmental hazards:**

- | | |
|----------------------------|----|
| · Marine pollutant: | No |
|----------------------------|----|

· **Special precautions for user**

- | | |
|--------------------------------|-------------------------------|
| · Danger code (Kemler): | Warning: Corrosive substances |
| · EMS Number: | 80 |
| · Segregation groups | F-A,S-B |
| · Stowage Category | Acids |
| | A |

· **Transport in bulk according to Annex II of**

- | | |
|-------------------------------------|-----------------|
| MARPOL73/78 and the IBC Code | Not applicable. |
|-------------------------------------|-----------------|

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· **Transport/Additional information:**

· **DOT**

· **Quantity limitations**

On passenger aircraft/rail: 25 kg
On cargo aircraft only: 100 kg

· **ADR**

· **Excepted quantities (EQ)**

Code: E1
Maximum net quantity per inner packaging: 30 g
Maximum net quantity per outer packaging: 1000 g

· **IMDG**

· **Limited quantities (LQ)**

· **Excepted quantities (EQ)**

5 kg
Code: E1
Maximum net quantity per inner packaging: 30 g
Maximum net quantity per outer packaging: 1000 g

· **UN "Model Regulation":**

UN 2967 SULFAMIC ACID MIXTURE, 8, III

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

EU regulation (EC) no 1272/2008 (CLP)

EC DIRECTIVE 2008/98/EC (waste)

EU Regulation (EC) no.1907/2006 (REACH)

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

CAS: 5329-14-6 sulphamidic acid

CAS: 77-92-9 citric acid

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS05

· **Signal word** Danger

· **Hazard statements**

H314 Causes severe skin burns and eye damage.

· **Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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.

P310 Immediately call a POISON CENTER/doctor.

P337+P313 If eye irritation persists: Get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

LIMITATION OF LIABILITY

This document is only intended to be used as guidance as regards the risks of which we are aware that are associated with the product. Every individual who works with the product or in close proximity of it must receive suitable training. Individuals who come into contact with the product must be capable of using their own judgement as regards conditions or methods for handling, storing and using the product. Alfa Laval is not liable for demands, losses or damage of any kind that arise from flaws or deficiencies in this document or from using, handling, storing or disposing of the product unless it can be proven that Alfa Laval has acted in a grossly negligent manner. Beyond what has been agreed upon and specified in writing with Alfa Laval in the individual case, Alfa Laval makes no promises or assumes any liability, including but not limited to implicit guarantees regarding marketability or appropriateness in terms of both the information provided in this document and the product to which the information refers.

· **Department issuing SDS:** MACC -Materials & Chemistry Centre

· **Contact:**

Argentina: alfa.consulta@alfalaval.com

Australia: australia.info@alfalaval.com

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Austria: info.mideurope@alfalaval.com
Belgium: benelux.info@alfalaval.com
Bolivia: alfa.consulta@alfalaval.com
Brazil: alfalaval.br@alfalaval.com
Bulgaria: bulgaria.info@alfalaval.com
Canada: alfacan.info@alfalaval.com
Chile: chile.informacion@alfalaval.com
China: china.info@alfalaval.com
Colombia: info.colombia@alfalaval.com
Croatia: hrvatska.info@alfalaval.com
Czech Republic: czechrepublic.info@alfalaval.com
Denmark: info.nordic.dk@alfalaval.com
Egypt: alme.marketing@alfalaval.com
Estonia: estonia.info@alfalaval.com
Finland: info.fi@alfalaval.com
France: environnement@alfalaval.com
Germany: info.mideurope@alfalaval.com
Greece: greece.info@alfalaval.com
Hungary: info.hu@alfalaval.com
India: india.info@alfalaval.com
Indonesia: alfalindo@alfalaval.com
Israel: israel.info@alfalaval.com
Italy: alfalaval.italia@alfalaval.com
Latvia: latvia.info@alfalaval.com
Lithuania: lithuania.info@alfalaval.com
Malaysia: malaysia.info@alfalaval.com
Mexico: mexico.info@alfalaval.com
The Netherlands: benelux.info@alfalaval.com

• **Date of preparation / last revision** 06/15/2017 / -

• **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1C: Skin corrosion/irritation – Category 1C
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

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