

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.08.2023

Version number 18 (replaces version 17)

Revision: 04.01.2023

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

1.1 Product identifier

· **Trade name:** Avesta Passivator 601

· **UFI:** Q520-00D8-700X-54QD

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

No further relevant information available.

· **Application of the substance / the mixture** Surface treatment of stainless and high alloyed steels

· **Uses advised against** Other materials than stainless and high alloyed steels

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

voestalpine Böhler weldCare AB Stenåldersgatan 7

213 76 Malmö, Sweden

Tel: +46 (0)40 - 28 83 00 www.voestalpine.com/welding- Midway Metals

54-66 Smeaton Ave, Dandenong VIC 3175 Australia STEPHEN COLLING

woody@midwaymetals.com.au

M +61 403 059 629

Further information obtainable from:

Mats Lundahl

+46 (0) 40 28 83 00; Mats.Lundahl@voestalpine.com

Emergency telephone number: Stephen Colling +61 403 059 629

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Met. Corr.1 H290 May be corrosive to metals.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS05 GHS07

Signal word Danger

Hazard-determining components of labelling:

nitric acid

Hazard statements

H290 May be corrosive to metals.

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H332 Harmful if inhaled.

H314 Causes severe skin burns and eye damage.

Precautionary statements

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

P284 Wear respiratory protection.

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.

P311 Call a POISON CENTER/doctor.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

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

Additional information:

EUH071 Corrosive to the respiratory tract.

2.3 Other hazards**Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients**3.2 Mixtures**

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 7697-37-2	nitric acid	12.5-25%
EINECS: 231-714-2	 Ox. Liq. 2, H272	
Index number: 007-004-00-1	 Acute Tox. 1, H330	
Reg.nr.: 01-2119487297-23	 Met. Corr.1, H290; Skin Corr. 1A, H314	
	EUH071	
	Specific concentration limits: Ox. Liq. 2; H272: C ≥ 99 %	
	Ox. Liq. 3; H272: 70 % ≤ C < 99 %	

nonhazardous components: -

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures**4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

General information:

Immediately remove any clothing soiled by the product.

Seek medical treatment.

After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

Drink plenty of water and provide fresh air. Call for a doctor immediately.

Seek medical treatment.

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- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
Nitrogen oxides (NOx)
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear fully protective suit.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Use respiratory protective device against the effects of fumes/dust/aerosol.
- **6.2 Environmental precautions:**
Dilute with plenty of water.
Not applicable
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Prevent formation of aerosols.
Ensure that suitable extractors are available on processing machines
- **Information about fire - and explosion protection:** The product is not flammable.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Prevent any seepage into the ground.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in 5-35° C. Heat and sunlight will increase pressure and may lead to the bottle to swell.

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· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· **Ingredients with limit values that require monitoring at the workplace:**

7697-37-2 nitric acid

IOELV Short-term value: 2.6 mg/m³, 1 ppm· **Additional information:** The lists valid during the making were used as basis.

· 8.2 Exposure controls

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Respiratory protection:**



In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter BE P3

· **Hand protection**



Protective gloves

Neoprene gloves

· **Penetration time of glove material**

≥ 8 h

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

· **Eye/face protection**

Safety glasses



Tightly sealed goggles

· **Body protection:**

Protective work clothing

Use protective suit.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Physical state	Fluid
· Colour:	Colourless
· Odour:	Pungent
· Odour threshold:	Not determined.
· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	Not applicable.
· Decomposition temperature:	Not determined.
· pH at 20 °C	0
· Kinematic viscosity	Not determined.
· Dynamic at 20 °C:	10,000 mPas
· water:	Fully miscible.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Density and/or relative density	
· Density at 20 °C:	1.25 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.

· 9.2 Other information

· Appearance:	
· Form:	Liquid
· Important information on protection of health and environment, and on safety.	
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Solvent separation test:	
· Solids content:	10.0 %
· Evaporation rate	Not determined.

· Information with regard to physical hazard classes

· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void

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· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	May be corrosive to metals.
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**
Reacts with various metals.
Develops corrosive gases/fumes.
When diluting, always add acid to water, never vice versa.
Reacts with alkali and metals.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Nitrogen oxides
Nitrogen oxides (NO_x)

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
 - **Acute toxicity** Harmful if inhaled.
 - **LD/LC50 values relevant for classification:**
- | | | |
|-----------------------|----------|----------------------------|
| 7697-37-2 nitric acid | | |
| Inhalative | LC50/4 h | 1.56 mg/l (rat) (OECD 403) |
- **Skin corrosion/irritation** Causes severe skin burns and eye damage.
 - **Serious eye damage/irritation** Causes serious eye damage.
 - **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
 - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
 - **Carcinogenicity** Based on available data, the classification criteria are not met.
 - **Reproductive toxicity** Based on available data, the classification criteria are not met.
 - **STOT-single exposure** Based on available data, the classification criteria are not met.
 - **STOT-repeated exposure** Based on available data, the classification criteria are not met.
 - **Aspiration hazard** Based on available data, the classification criteria are not met.
 - **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

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SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

7697-37-2 nitric acid

LC50 100 mg/l (Fish) (96 H)

· 12.2 Persistence and degradability No further relevant information available.

· 12.3 Bioaccumulative potential Not known to be bioaccumulative

· 12.4 Mobility in soil No further relevant information available.

· 12.5 Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

· 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

· 12.7 Other adverse effects

· Additional ecological information:

· General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Danger to drinking water if even small quantities leak into the ground.

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.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

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

Must be specially treated adhering to official regulations.

After prior treatment product has to be landfilled or incinerated adhering to the regulations pertaining to the disposal of especially hazardous waste.

· European waste catalogue

11 01 06* acids not otherwise specified

· Uncleaned packaging:

· Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

· Recommended cleansing agents:

Water, if necessary together with cleansing agents.

Diluted caustic solution.

SECTION 14: Transport information

· 14.2 UN proper shipping name

· ADR, IMDG, IATA

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· ADR, IMDG, IATA	NITRIC ACID solution
· 14.3 Transport hazard class(es)	
· ADR, IMDG, IATA	
	
· Class	8 Corrosive substances.
· Label	8
· 14.4 Packing group	
· ADR, IMDG, IATA	II
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Warning: Corrosive substances.
· Hazard identification number (Kemler code):	80
· EMS Number:	F-A,S-B
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	- UN 2031 NITRIC ACID SOLUTION, 8, II

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No further relevant information available.
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

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· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

All substances have the value $>3\text{-}\leq 10\%$.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **National regulations:**

· **Other regulations, limitations and prohibitive regulations**

Enskildas förvärv, införsel innehav och användning av denna produkt omfattas av restriktioner enligt förordning (EU) 2019/1148. Alla misstänkta transaktioner och betydande stölder och försvinnanden ska rapporteras till polisen.

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

SECTION 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.

· **Additional information:**

· **Relevant phrases**

H272 May intensify fire; oxidiser.

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H330 Fatal if inhaled.

EUH071 Corrosive to the respiratory tract.

· **Training hints -**

· **Date of previous version:** 24.11.2022

· **Version number of previous version:** 17

· **Abbreviations and acronyms:**

NCEC - National Chemical Emergency Centre (=Carechem24)

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

TRGS: Technische Regeln für Gefahrstoffe (Technical Rules for Dangerous Substances, BAuA, Germany)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Ox. Liq. 2: Oxidizing liquids – Category 2

Met. Corr. 1: Corrosive to metals – Category 1

Acute Tox. 1: Acute toxicity – Category 1

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Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Eye Dam. 1: Serious eye damage/eye irritation – Category 1

· *** Data compared to the previous version altered.**

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