



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Passivierungsmittel P**

Print date: 22.07.2019

Product code: C2710

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- 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/shower.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P310 Immediately 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.  
 P390 Absorb spillage to prevent material damage.

**2.3. Other hazards**

No information available.

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

**3.2. Mixtures**

**Chemical characterization**  
inorganic acids

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
7697-37-2	Nitric acid			< 50 %
	231-714-2	007-004-00-1	01-2119487297-23	
	Ox. Liq. 2, Met. Corr. 1, Acute Tox. 3, Skin Corr. 1A; H272 H290 H331 H314			

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

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down. Avoid contact with skin, eyes and clothes. Wear suitable protective clothing, gloves and eye/face protection. Remove contaminated, saturated clothing immediately.

**After inhalation**

Provide fresh air. Medical treatment necessary.

**After contact with skin**

After contact with skin, wash immediately with plenty of water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

**After ingestion**

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

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

Causes severe skin burns and eye damage.

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

Immediate medical treatment required because corrosive injuries that are not treated are hard to cure. Treat symptomatically.

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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. The product itself does not burn.  
Water spray jet, Water mist, Foam, Dry extinguishing powder, Carbon dioxide

#### Unsuitable extinguishing media

High power water jet

### 5.2. Special hazards arising from the substance or mixture

Non-flammable. In case of fire may be liberated: Nitrogen oxides (NO<sub>x</sub>)

### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.  
Do not allow entering drains or surface water. Dispose of waste according to applicable legislation.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. Cover drains. Before discharge into sewage plants the product normally needs to be neutralised.

### 6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

### 6.4. Reference to other sections

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Keep container tightly closed.  
Wear suitable protective clothing, gloves and eye/face protection.  
Avoid contact with skin, eyes and clothes. When using do not eat, drink or smoke. Do not breathe gas/fumes/vapour/spray. Wash hands before breaks and after work.

#### Advice on protection against fire and explosion

No special fire protection measures are necessary.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations. Unsuitable container/equipment material:  
Metal.

#### Advice on storage compatibility

Do not store together with: alkali

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**Further information on storage conditions**

Protect against: Frost  
storage temperature 5 - 35 °C

**7.3. Specific end use(s)**

Metal surface treatment products, including galvanic and electroplating products

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
7697-37-2	Nitric acid	-	-		TWA (8 h)	WEL
		1	2.6		STEL (15 min)	WEL

**DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
7697-37-2	Nitric acid			
Worker DNEL, long-term		inhalation	local	2,6 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	local	2,6 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	1,3 mg/m <sup>3</sup>
Consumer DNEL, acute		inhalation	local	1,3 mg/m <sup>3</sup>

**8.2. Exposure controls**



**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

**Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

**Eye/face protection**

Suitable eye protection: goggles.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

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**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state: liquid  
Colour: colourless  
Odour: odourless

**Test method**

pH-Value (at 20 °C): 1,4 (10 g/l)

**Changes in the physical state**

Melting point: not determined  
Initial boiling point and boiling range: not determined  
Flash point: not determined

Sustaining combustion: ASTM D 4206

**Flammability**

Solid: not applicable  
Gas: not applicable

Lower explosion limits: not determined VDI 2263

Upper explosion limits: not determined VDI 2263

**Auto-ignition temperature**

Solid: not applicable  
Gas: not applicable

Decomposition temperature: not determined

**Oxidizing properties**

Not oxidizing.

Vapour pressure: not determined

Density (at 20 °C): 1,15 g/cm<sup>3</sup>

Water solubility: easily soluble

**Solubility in other solvents**

not determined

Partition coefficient: not determined

Vapour density: not determined

Evaporation rate: not determined

**9.2. Other information**

Solid content: not determined

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

Corrosive to metals. Possibility of hazardous reactions.

Reacts with : alkali

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Exothermic reaction with: alkali

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**10.4. Conditions to avoid**

Temperature < 5°C

**10.5. Incompatible materials**

Metal.

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity**

Harmful if inhaled.

**ATEmix calculated**

ATE (inhalative vapour) 10,60 mg/l; ATE (inhalative aerosol) 2,000 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	
7697-37-2	Nitric acid				
	inhalative (4 h) vapour	LC50 2,65 mg/l	Rat	OECD 403	
	inhalative aerosol	ATE 0,5 mg/l			

**Irritation and corrosivity**

Causes severe skin burns and eye damage.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

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.

**Additional information on tests**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

**SECTION 12: Ecological information**

**12.1. Toxicity**

The product is not: Ecotoxic.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	
7697-37-2	Nitric acid					
	Acute fish toxicity	LC50 12,5 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	OECD 203	
	Acute crustacea toxicity	EC50 4,6 mg/l	48 h	Ceriodaphnia dubia	US-EPA	

**12.2. Persistence and degradability**

The product has not been tested.

**12.3. Bioaccumulative potential**

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The product has not been tested.

#### **12.4. Mobility in soil**

The product has not been tested.

#### **12.5. Results of PBT and vPvB assessment**

The product has not been tested.

#### **12.6. Other adverse effects**

No information available.

#### **Further information**

Avoid release to the environment.

### SECTION 13: Disposal considerations

#### **13.1. Waste treatment methods**

##### **Advice on disposal**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

##### **Waste disposal number of contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances  
Classified as hazardous waste.

##### **Contaminated packaging**

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself. Contaminated packages must be completely emptied and can be re-used following proper cleaning.

Wash with plenty of water.

### SECTION 14: Transport information

#### **Land transport (ADR/RID)**

<b>14.1. UN number:</b>	UN 2031
<b>14.2. UN proper shipping name:</b>	NITRIC ACID
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8



Classification code:	C1
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E

#### **Inland waterways transport (ADN)**

<b>14.1. UN number:</b>	UN 2031
<b>14.2. UN proper shipping name:</b>	NITRIC ACID

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**14.3. Transport hazard class(es):** 8

**14.4. Packing group:** II

Hazard label: 8



Classification code: C1

Limited quantity: 1 L

Excepted quantity: E2

**Marine transport (IMDG)**

**14.1. UN number:** UN 2031

**14.2. UN proper shipping name:** NITRIC ACID

**14.3. Transport hazard class(es):** 8

**14.4. Packing group:** II

Hazard label: 8



Special Provisions: -

Limited quantity: 1 L

Excepted quantity: E2

EmS: F-A, S-B

**Air transport (ICAO)**

**14.1. UN number:** UN 2031

**14.2. UN proper shipping name:** NITRIC ACID

**14.3. Transport hazard class(es):** 8

**14.4. Packing group:** II

Hazard label: 8



Limited quantity Passenger: Forbidden

Passenger LQ: Forbidden

Excepted quantity: E0

IATA-packing instructions - Passenger: Forbidden

IATA-max. quantity - Passenger: Forbidden

IATA-packing instructions - Cargo: 855

IATA-max. quantity - Cargo: 30 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

No information available.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

not applicable

**SECTION 15: Regulatory information**

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



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**EU regulatory information**

2004/42/EC (VOC): 0 %

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Water contaminating class (D): 1 - slightly water contaminating

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****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

IATA: International Air Transport Association

GHS: Globally Harmonized 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

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

**Relevant H and EUH statements (number and full text)**

H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H331	Toxic if inhaled.
H332	Harmful if inhaled.

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*