

Safety data sheet

according to Regulation (EC) No 1907/2006 (REACH)

Printing date 02.02.2017

Version number 3

Revision: 31.01.2017

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

• 1.1 Product identifier

- Trade name: L 310
- Article number: 285138468
- Description: Potassium nitrate solution (gel)
- Product code: scho0003

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

- Product category: PC21 Laboratory chemicals
- Process category: PROC15 Use as laboratory reagent
- Application of the substance / the preparation: Electrolyte solution

• 1.3 Details of the supplier of the safety data sheet

• Manufacturer/Supplier:

Xylem Analytics Germany GmbH
Dr.-Karl-Slevogt-Str. 1
82362 Weilheim
Germany

Contact: SI Analytics, Mainz
Tel. +49.(0)6131.66.5111

- Further information obtainable from: E-Mail: msds.si@xyleminc.com

- **1.4 Emergency telephone number:** Chemtrec: (USA & Canada) 800-424-9300 (International) 001 703-527-3887

SECTION 2: Hazards identification

• 2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008:
The product is not classified according to the CLP regulation.

• 2.2 Label elements:

- 2.2.1 Labelling according to Regulation (EC) No 1272/2008: Void
- Hazard pictograms: Void
- Signal word: Void
- Hazard statements: Void

- **2.3 Other hazards** No further relevant information available.

SECTION 3: Composition/information on ingredients

• 3.2 Mixture

- Description:
Mixture of substances listed below with nonhazardous additions.
Water, glycerol, potassium nitrate, potassium chloride

• Dangerous components:

CAS: 7757-79-1	potassium nitrate	 Ox. Sol. 2, H272	5-<10%
EINECS: 231-818-8			

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

SECTION 4: First aid measures

• 4.1 Description of first aid measures

- After inhalation: Supply fresh air; consult doctor in case of complaints.

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- After skin contact: Rinse skin with water/shower.
- After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: Seek immediate medical advice.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **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:
The product is not flammable. Extinguishing agent to suit environment.
Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Nitrogen oxides (NO_x)
Acrolein
- **5.3 Advice for firefighters**
- Protective equipment: Wear self-contained respiratory protective device.
- Additional information
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation
- **6.2 Environmental precautions:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Wash off residuals with water.
- **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** No special precautions are necessary if used correctly.
- Information about fire - and explosion protection: No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- 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:
Store at room temperature (15-25 °C).
Prevent from drying out.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- **8.1 Control parameters**
- Ingredients 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 valid during the making were used as basis.

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• 8.2 Exposure controls

- Personal protective equipment:
- General protective and hygienic measures:
 - Avoid contact with the eyes and skin.
 - Do not inhale gases / fumes / aerosols.
 - Take off contaminated clothing and wash it before reuse.
 - Wash hands before breaks and at the end of work.
- Respiratory protection: Not required.
- Protection of hands: Protective gloves recommended for frequent or long-term skin contact.
- Material of gloves
 - Recommended thickness of the material: $\geq 0,35$ mm
 - Nitrile rubber, NBR
- 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: Safety glasses
- Body protection: Light weight protective clothing

SECTION 9: Physical and chemical properties

• 9.1 Information on basic physical and chemical properties

• General Information • Appearance: <table> <tr> <td>Form:</td><td>Viscous</td></tr> <tr> <td>Colour:</td><td>Colourless</td></tr> <tr> <td>• Odour:</td><td>Odourless</td></tr> <tr> <td>• Odour threshold:</td><td>Not determined.</td></tr> </table>		Form:	Viscous	Colour:	Colourless	• Odour:	Odourless	• Odour threshold:	Not determined.
Form:	Viscous								
Colour:	Colourless								
• Odour:	Odourless								
• Odour threshold:	Not determined.								
• pH-value at 20 °C:	5,4								
• Change in condition <table> <tr> <td>Melting point/freezing point:</td><td>ca. -20 °C</td></tr> <tr> <td>Initial boiling point and boiling range:</td><td>120 °C</td></tr> </table>		Melting point/freezing point:	ca. -20 °C	Initial boiling point and boiling range:	120 °C				
Melting point/freezing point:	ca. -20 °C								
Initial boiling point and boiling range:	120 °C								
• Flash point:	177 °C								
• Flammability (solid, gas):	Not applicable.								
• Ignition temperature:	400 °C								
• Decomposition temperature:	Not determined.								
• Auto-ignition temperature:	Product is not selfigniting.								
• Explosive properties:	Product does not present an explosion hazard.								
• Explosion limits: <table> <tr> <td>Lower:</td><td>0,9 Vol %</td></tr> <tr> <td>Upper:</td><td>Not determined.</td></tr> </table>		Lower:	0,9 Vol %	Upper:	Not determined.				
Lower:	0,9 Vol %								
Upper:	Not determined.								
• Vapour pressure at 20 °C:	23 hPa								
• Density at 20 °C: 1,19 g/cm ³ • Relative density: Not determined. • Vapour density: Not determined. • Evaporation rate: Not determined.									
• Solubility in / Miscibility with water:	Fully miscible.								
• Partition coefficient: n-octanol/water:	Not determined.								
• Viscosity: <table> <tr> <td>Dynamic:</td><td>Not determined.</td></tr> </table>		Dynamic:	Not determined.						
Dynamic:	Not determined.								

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- | | |
|--------------------------------|--|
| Kinematic: | Not determined. |
| • 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
 - Thermal decomposition / conditions to be avoided:
 - Do not let dry up.
 - Solid potassium nitrate is oxidizing.
- **10.3 Possibility of hazardous reactions**
 - Flammable if water content dries out.
 - Reacts with strong oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** In case of fire, see section 5.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
 - Acute toxicity Based on available data, the classification criteria are not met.

- LD/LC50 values relevant for classification:

7757-79-1 potassium nitrate

Oral	LD50	3015 mg/kg (Rat) (IUCLID)
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- Primary irritant effect:
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- Toxicokinetics, metabolism and distribution Potassium nitrate is resorbed by mucous membranes.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- 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.

* SECTION 12: Ecological information

- **12.1 Toxicity**

- Aquatic toxicity:

7757-79-1 potassium nitrate

EC50	490 mg/l, 48 h (Daphnia magna) (IUCLID)
LC50	191 mg/l, 96 h (Poecilia reticulata) (Ecotox)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

- Additional ecological information:

- General notes:

Water hazard class 1 (German Regulation) (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.

- **12.5 Results of PBT and vPvB assessment** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

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* 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. Disposal must comply with the relevant local regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.

• 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.

SECTION 14: Transport information

• 14.1 UN-Number	
• ADR/RID, ADN, IMDG, IATA	Void
• 14.2 UN proper shipping name	
• ADR/RID, ADN, IMDG, IATA	Void
• 14.3 Transport hazard class(es)	
• ADR/RID, ADN, IMDG, IATA	
• Class	Void
• 14.4 Packing group	
• ADR/RID, IMDG, IATA	Void
• 14.5 Environmental hazards:	
• Marine pollutant:	No
• 14.6 Special precautions for user	Not applicable.
• 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
• UN "Model Regulation":	Void

* SECTION 15: Regulatory information

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

• Directive 2012/18/EU

• Named dangerous substances - ANNEX I potassium nitrate

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

SECTION 16: Other information

• Relevant phrases

H272 May intensify fire; oxidiser.

• Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

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 Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Ox. Sol. 2: Oxidizing solids – Category 2

- * Data compared to the previous version altered.

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