

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.03.2015


Version number 1

Revision: 16.03.2015

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

- **1.1 Product identifier**
- **Trade name: KSH-11**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation : Reagent**
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
KIMO Instruments  
Zone Industrielle  
BP16  
24700 Montpon  
Tél : 05 53 80 85 00 - Fax : 05 53 80 16 81  
Email : qualite.securite@kimo.fr - www.kimo.fr
- **1.4 Emergency telephone number:**  
France (ORFILA 24h/24) - Tel : +33 (0)1 45 42 59 59  
Ireland - Tel : 00 353 1 8092568 - 00 353 1 8379964 (24h/24)  
UK : +44 (0)-870-190-6777 (CARECHEM24)

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
  - **Classification according to Regulation (EC) No 1272/2008 :**
-  **GHS07**
- Acute Tox. 4 H302 Harmful if swallowed.  
Acute Tox. 4 H312 Harmful in contact with skin.  
Eye Irrit. 2 H319 Causes serious eye irritation.  
STOT SE 3 H335 May cause respiratory irritation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC :**



Xn; Harmful

R21/22: Harmful in contact with skin and if swallowed.



Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled in the latest valid version according to the calculation procedure of the "General Classification guideline for preparations of the EU".

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

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

(Contd. on page 2)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.03.2015

Version number 1

Revision: 16.03.2015

**Trade name: KSH-11**

(Contd. of page 1)

· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard-determining components of labelling:**

*lithium chloride*

· **Hazard statements**

H302+H312 Harmful if swallowed or in contact with skin.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

· **Precautionary statements**

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

P264 Wash hands thoroughly after handling.

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

P301+P312 *IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.*

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

P330 Rinse mouth.

P302+P352 *IF ON SKIN: Wash with plenty of water.*

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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

· **3.2 Chemical characterisation: Mixtures**

· **Description:** Mixture: consisting of the following components.

· **Dangerous components:**

CAS: 7447-41-8	<i>lithium chloride</i>	50-100%
EINECS: 231-212-3	☒ Xn R21/22; ☒ Xi R36/37/38	
RTECS: OJ 5950000	☠ Acute Tox. 4, H302; Acute Tox. 4, H312; Eye Irrit. 2, H319;	
Reg.nr.: 01-2119560574-35	STOT SE 3, H335	

· **Additional information:** For the wording of the listed risk phrases, refer to section 16.

**SECTION 4: First aid measures**

· **4.1 Description of first aid measures**

· **General information:**

*Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.*

· **After excessive inhalation:**

*In case of unconsciousness place patient in a stable laying down side position for transportation.*

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:**

*Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.*

(Contd. on page 3)

**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

Printing date 16.03.2015

Version number 1

Revision: 16.03.2015

**Trade name: KSH-11**

(Contd. of page 2)

- **After swallowing:** Call for a doctor immediately.
- **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 Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture :** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

**SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures :** Not required.
- **6.2 Environmental precautions:**  
Dilute with plenty of water.  
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).  
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 protective equipment.  
See Section 13 for disposal information.

**SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling :**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **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 section 7.

(Contd. on page 4)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.03.2015

Version number 1

Revision: 16.03.2015

**Trade name: KSH-11**

(Contd. of page 3)

· **8.1 Control parameters**

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

**7447-41-8 lithium chloride (50-100%)**

MAK (Switzerland)	Short-term value: 0.2 e mg/m <sup>3</sup> Long-term value: 0.2 e mg/m <sup>3</sup> SSc;als Li
-------------------	---

· **Additional information:**

As a basis for the production of this document, the most current valid lists were used.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from food, beverages and petfood.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Respiratory protection:** Not required.

· **Protection of hands:**



Protective gloves

· **Gloves material :**

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which may vary 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 before use.

· **Eye protection:**



Tightly sealed goggles

**SECTION 9: Physical and chemical properties**

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

· **General Information**

· **Appearance:**

**Form:** Liquid  
**Colour:** According to product specification

· **Odour:** Characteristic

· **Odour threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

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

**Boiling point/Boiling range:** 100 °C

· **Flash point:** Not applicable.

(Contd. on page 5)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.03.2015

Version number 1

Revision: 16.03.2015

**Trade name: KSH-11**

(Contd. of page 4)

· <b>Flammability (solid, gaseous):</b>	<i>Not applicable.</i>
· <b>Ignition temperature:</b>	<i>Not applicable.</i>
· <b>Decomposition temperature:</b>	<i>Not determined.</i>
· <b>Self-igniting:</b>	<i>Product is not self igniting.</i>
· <b>Danger of explosion:</b>	<i>Product does not present an explosion hazard.</i>
· <b>Explosion limits:</b>	
Lower:	<i>Not determined.</i>
Upper:	<i>Not determined.</i>
· <b>Vapour pressure at 20 °C:</b>	<i>23 hPa</i>
· <b>Density:</b>	<i>Not determined.</i>
· <b>Relative density :</b>	<i>Not determined.</i>
· <b>Vapour density :</b>	<i>Not determined.</i>
· <b>Evaporation rate :</b>	<i>Not determined.</i>
· <b>Solubility in / Miscibility with water:</b>	<i>Fully miscible.</i>
· <b>Segregation coefficient (n-octanol/water):</b>	<i>Not determined.</i>
· <b>Viscosity:</b>	
Dynamic:	<i>Not determined.</i>
Kinematic:	<i>Not determined.</i>
· <b>9.2 Other information :</b>	<i>No further relevant information available.</i>

### SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **10.3 Possibility of hazardous reactions :** *No dangerous reactions known.*
- **10.4 Conditions to avoid :** *No further relevant information available.*
- **10.5 Incompatible materials:** *No further relevant information available.*
- **10.6 Hazardous decomposition products:** *No dangerous decomposition products known.*

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

 · **LD/LC50 values relevant for classification:**
**7447-41-8 lithium chloride**

Oral | LD50 | 526 mg/kg (rat)

- **Primary irritant effect:**
- **On the skin:** *Irritant to skin and mucous membranes.*
- **On the eyes:** *Irritating effect.*
- **Sensitisation:** *No sensitising effects known.*

(Contd. on page 6)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.03.2015

Version number 1

Revision: 16.03.2015

Trade name: KSH-11

(Contd. of page 5)

· **Additional toxicological information:**

The product shows the following hazards according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful  
Irritant

**SECTION 12: Ecological information**

· **12.1 Toxicity**

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

· **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**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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

**SECTION 13: Disposal considerations**

· **13.1 Waste treatment methods**

· **Recommendation :**



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

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**SECTION 14: Transport information**

· **14.1 UN-Number**

· **ADR, ADN, IMDG, IATA**

Not classified as hazardous for transport

· **14.2 UN proper shipping name**

· **ADR, ADN, IMDG, IATA**

Not classified as hazardous for transport

· **14.3 Transport hazard class(es)**

· **ADR, ADN, IMDG, IATA**

· **Class**

Not classified as hazardous for transport

· **14.4 Packing group**

· **ADR, IMDG, IATA**

Not classified as hazardous for transport

(Contd. on page 7)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.03.2015

Version number 1

Revision: 16.03.2015

**Trade name: KSH-11**

(Contd. of page 6)

- |   |                 |
|---|-----------------|
| · <b>14.5 Environmental hazards:</b>  |                 |
| · <b>Marine pollutant:</b>  | No              |
| · <b>14.6 Special precautions for user</b>  | Not applicable. |
| · <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |
| · <b>UN "Model Regulation":</b>   | -               |

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.
- **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.*

· **Relevant phrases**

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- R21/22 Harmful in contact with skin and if swallowed.
- R36/37/38 Irritating to eyes, respiratory system and skin.

· **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 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- Acute Tox. 4: Acute toxicity, Hazard Category 4
- Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
- STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3