Safety Data Sheet
Potassium hydroxide Liquid

Section 1 - IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY	
1.1 Identification of the substance	
• **Substance Name**	: Potassium hydroxide
• **EC#**	: 215-181-3
• **CAS#**	: 1310-58-3
• **Trade Names**	: As per client
• **REACH Registration number**	: 01-2119487136-33-0020
• **Synonym:**	: Caustic potash
	: Potassium hydrate
• **Chemical Formula**	: KOH
• **Structure:**	KOH
1.2 Use of the Substance/Mixture:	
• Manufacture of substances	
• Intermediate	
• Laboratory chemicals	
1.3 Company/undertaking identification:	
• **Manufacturer Details:**	Soda Chlorate 618400, Berizniki, Perm region, Russia, Churtanskoe shosse 3
• **Only Representative Details:**	Momaja s.r.o. ELC GROUP Krakovska 9, Prague 1, 11000 Phone : +420 22 491 0000 Fax : +420 22 491 0671
1.4 Emergency Telephone:	
• **Emergency Telephone & Contact**	-

Section 2 - HAZARDS IDENTIFICATION	
2.1 Classification of substance as per CLP	
2.1.1 Classification according to Regulation (EC) # 1272/2008 (CLP/GHS)	
• Hazard Class and Category Code(s)	Acute Tox. 4 Skin Corr. 1A, Danger
• Hazard statement Code(s)	H 302: Harmful if swallowed. H 314: Causes severe skin burns and eye damage.

2.1.2 Classification according to Directive 67/548/EEC(DSD)	
Acute Tox. 4 Skin Corr. 1A, Danger	
2.2 Labelling:	
2.2.1 Labeling according to Regulation (EC) No 1272/2008 (CLP/GHS)	
• **Hazard Pictogram :**	 Corrosion Exclamation mark Signal word: Danger
• **Hazard Statements :**	H 302: Harmful if swallowed. H 314: Causes severe skin burns and eye damage.
• **Precautionary Statements :**	P280: Wear protective gloves/protective clothing/eye protection/face protection P260: Do not breathe dust/fume/gas/mist/vapours/spray.. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P310: Immediately call a POISON CENTER or doctor/physician.
2.2.2 Labeling according to Directive 67/548/EEC (DSD)	
• **R-phrases**	R22 - harmful if swallowed R35 - causes severe burns
• **S-phrases:**	S1/2 - keep locked up and out of reach of children. S26 - in case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39 - wear suitable protective clothing, gloves and eye/face protection S45 - in case of accident or if you feel unwell, seek medical advice immediately (show the lable where possible)
2.3. Other hazards	None
Section 3 - COMPOSITION/INFORMATION ON INGREDIENTS	

Constituent	CAS No.	EC No.	Typical concentration	Concentration range	Remarks
Potassium hydroxide	1310-58-3	215-181-3	-		None
Impurity	**CAS No.**	**EC No.**	**Typical concentration**	**Concentration range**	**Remarks**
					None

Section 4 - FIRST AID MEASURES	
4.1 Description of First Aid measures:	
• **Eye contact** :	- Consult a doctor/medical service - Rinse immediately with plenty of water for 15 minutes - Do not apply neutralizing agents
• **Skin Contact** :	- Consult a doctor/medical service - Wash immediately with lots of water and soap for 15 minutes - Remove clothing while washing
• **Inhalation** :	- Consult a doctor/medical service if breathing problems develop - Remove the victim into fresh air - Unconscious: maintain adequate airway and respiration
• **Ingestion** :	- Consult a doctor/medical service if you feel unwell - Immediately give lots of water to drink - Never give water to an unconscious person - Do not induce vomiting
4.2. Most important symptoms and effects, both acute and delayed	
None	
4.3. Indication of any immediate medical attention and special treatment needed	
Treat according to the symptoms, no known specific antidote.	
Section 5 - FIRE-FIGHTING MEASURES	
5.1. Extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.	
5.2. Special hazards arising from the substance or mixture	
• **Flammability of the Product**	: Non flammable
• **Auto-Ignition Temperature**	: No data available
• **Flash Points**	: Non flammable
• **Flammable Limits**	: No data available
• **Products of Combustion**	: No data available
5.3. Advice for fire-fighters	
Wear self contained breathing apparatus for fire fighting if necessary. LARGE FIRE: Use water spray, fog or foam. Do not use water.	
Section 6 - ACCIDENTAL RELEASE MEASURES	

6.1. Personal precautions, protective equipment and emergency procedures	
• **Personal Protective Equipment**	- Isolate the area. - Evacuate personnel to safe areas - Approach from upwind. - Ventilate the area. - Keep away from incompatible products - Wear chemical resistant personal protective equipment - Prevent further leakage or spillage if safe to do so. - Abundant running water should be available for emergency use. - Refer to protective measures listed in sections handling and storage and exposure controls/personal protection.
• **Skin Protection**	Wear gloves.
• **Work practice**	Eye wash fountains should be provided. Employees who have skin contact with KOH shall immediately wash and shower (if necessary) for 15 min. Contaminated clothing shall either be disposed of or placed into impervious containers and cleaned before re-use.
6.2. Environmental precautions:	
- Should not be released into the environment. - Do not flush into surface water or sanitary sewer system. - Dam up the liquid spill. - Contain leaking substance, pump over in suitable containers - Notify environmental personnel	
6.3. Methods and material for containment and cleaning:	
• Small Spill:	Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid
• Large Spill:	Corrosive solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of acetic acid. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.
Section 7 - HANDLING AND STORAGE	
7.1 Precautions for safe handling	
• Observe strict hygiene - avoid eye and skin contact. • Avoid splashing of material. • Safety showers should be readily available in handling and storage areas. • Eye wash fountains should be located in the work areas and should be immediately accessible for emergency	

use.

- Remove contaminated clothing immediately.
- When diluting, always add the product to water. Never add water to the product.
- Keep away from incompatible products.

7.2 Conditions for safe storage:

- Store in a well-ventilated area.
- Store at ambient temperature.
- Keep container tightly closed.
- KOH in contact with water or moisture may result in enough heat to ignite combustibles.
- Keep away from: heat sources, highly flammable materials, incompatible products.
- Packaging material
- Suitable: stainless steel, synthetic material / polyethylene, glass
- To avoid: lead, aluminium, copper, tin, zinc, bronze

7.3 Specific end use(s):

- As mentioned in section 1.2

Section 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Threshold Limit Values:	No data available.

8.2 Exposure Control:

• **Engineering measures**	- Ensure adequate ventilation. - Apply technical measures to comply with the occupational exposure limits.
• **Respiratory Protection:**	- In the case of dust or aerosol formation use respirator with an approved filter. - Recommended Filter type: P2
• **Hand Protection**	- Impervious gloves - Suitable material: PVC, Neoprene, Natural rubber, Butyl rubber - Unsuitable material: Leather
• **Eye protection**	- Wear chemical resistant goggles. - Face shield if risk on splashes.
• **Skin protection**	- Corrosion proof clothing. - Suitable material: PVC, Neoprene, Natural rubber, Butyl rubber

Section 9 – PYYSICAL & CHEMICAL PROPERTIES:

9.1 General Information:

• **Physical state**	: Liquid
• **Color**	: Colorless
• **odour**	: odourless

9.2 Important health, safety and environmental information

• **pH**	: 13.5
• **Molecular Weight**	: 56
• **Boiling point/boiling range**	: 1327 °C at 1013 hPa
• **Melting point**	: 406°C
• **Auto ignition point**	: No data available
• **Density**	: 2.04 g/cm³ at 20°C
• **Specific gravity**	: Not available
• **Vapour pressure**	: <= 1 Pa at <= 520 °C
• **Vapour density**	: Not available
• **Volatility**	: Not available
• **Solubility**	: soluble in water
• **log Po/w**	: Not available
• **Index of refraction**	: Not available

Section 10 - STABILITY AND REACTIVITY

• **Reactivity**	: No data available
• **Chemical stability**	: The product is stable
• **Possibility of hazardous reactions**	: No data available
• **Conditions to avoid**	: Avoid humidity.
• **Hazardous decomposition products**	: No hazardous decomposition products if stored and handled as prescribed/indicated.
• **Incompatible materials**	: lead, aluminium, copper, tin, zinc, bronze

Section 11 - TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

11.2 Irritation Corrosion:

Skin: Skin-rabbit-Severe skin irritation -24 h
Eye: Serious eye damage/eye irritation Eyes-rabbit-Eye irritation -24 h

11.3 Sensitization

- No data available

11.4 CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

• **Carcinogenicity :**	No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
• **Mutagenic effects :**	Not classified
• **Reprotoxic effects :**	Not classified
11.5 Other toxic effects on humans:	
• **Inhalation :**	Not available
• **Ingestion :**	Harmful if swallowed.
• **Chronic toxicity :**	No data available
11.6 NIOSH Immediately Dangerous To Life or Health Concentration (IDLH):	
• No information available	
11.7 Specific target organ toxicity:	
• **Single exposure :**	No experimental or epidemiological sufficient evidence for specific target organ toxicity (single exposure)
• **Repeated exposure :**	No experimental or epidemiological sufficient evidence for specific target organ toxicity
Section 12 - ECOLOGICAL INFORMATION	
12.1 Ecotoxicity:	
Ecotoxicity in water (LC50): 80 mg/l 24 hours [Mosquito Fish].	
12.2 Persistence and degradability:	
No data available	
12.3 Bioaccumulative potential:	
• No data available	
12.4 Mobility in soil:	
• No data available	
12.5 Results of PBT and vPvB assessment:	
• No data available	
12.6 Other adverse effects:	
• Harmful to aquatic life.	

Section 13 - DISPOSAL CONSIDERATIONS

• **Waste treatment methods** :	**Product** Offer surplus and non-recyclable solutions to a licensed disposal company. **Contaminated packaging** Dispose of as unused product.

Section 14 - TRANSPORT INFORMATION

• **UN Number** :	1814
• **UN proper shipping name** :	POTASSIUM HYDROXIDE, LIQUID
• **Transport hazard class** :	8
• **Packing group** :	II
• **Environmental hazards** :	Not regulated
• **Special precautions for user** :	No data available.

Section 15 - REGULATORY INFORMATION

15.1 Other regulatory information:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture
Control of Substances Hazardous to Health Regulations (COSHH) 2002 SI 2002/2677 and COSHH Essentials: Easy steps to control chemicals - Control of Substances Hazardous to Health Regulations HSG193.
Inventory Status
Listed in: Australia (AICS) Canada (DSL/NDSL) China (IECSC) European Union (EINECS/ELINCS) South Korea (KECI) Philippines (PICCS) New Zealand Inventory (NZIoC)

• **HMIS (Hazardous Materials Identification system) classification** :	

3 = Major injury likely unless prompt action is taken and medical treatment is given.
0 = Materials that will not burn.
2 = Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion.

	
• **NFPA** : **(National Fire Protection Association)**	**Health** 3 **Fire** 0 **Reactivity** 1 **Personal Protection** 3 = Short exposure could cause serious temporary or moderate residual injury. 0 = Materials that will not burn under typical fire, including intrinsically noncombustible materials such as concrete, stone and sand 1 = Normally stable, but can become unstable at elevated temperatures and pressures

15.2 Chemical Safety Assessment:

- A chemical safety assessment has been carried out for the substance or the mixture by the supplier (LR) -Yes

Section 16 – OTHER INFORMATION

16.1 Technical Advice:

- Use data given in this Safety Data Sheet and make an inventory list of all chemicals used in the factory
- Create a Register for Workplace Chemicals;
- Set priorities concerning the safety in the organization
- Create emergency plans for the assessed hazards;
- Organize occupational health care and regular surveys as necessary;
- Organize contacts with authorities/laboratories to create a monitoring system for chemical hazards, and to reliably

measure and/or estimate occupational exposures to chemicals when needed;
• Start collecting case studies of accidents and sickness records in the enterprise to create a basis for priority measures in the control of hazards;
• Involve workers in safety organizations, such as the system of Safety Representatives and Committees.
• Do regular inspection using checklists made for the particular chemicals and chemical processes in use;
• Mark and label all chemicals;
• Keep at hand an inventory list of all chemicals handled in the place of work together with a collection of Chemical Safety Data Sheets for these chemicals;
• Train workers to read and understand the Chemical Safety Information, including the health hazards and routes of exposure; train them to handle dangerous chemicals and processes with respect;
• Plan, develop and choose the safe working procedures;
• Reduce the number of people coming into contact with dangerous chemicals;
• Reduce the length of time and/or frequency of exposure of workers to dangerous chemicals;
• Train workers to know and understand the emergency procedures;
• Equip and train workers to use personal protective equipment properly after everything possible has been done to eliminate hazards by means of other methods;
16.2 List of relevant R phrases:
R22 - harmful if swallowed R35 - causes severe burns

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