Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

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

1.1. Product identifier

Trade name/designation:

CURTIS Alkalireserve 9010

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

Use of the substance/mixture:

Additive / pH-regulating agent

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Curtis Systems GmbH
Geheimrat-Hummel-Platz Nr. 4
65239 Hochheim
Germany
Telephone: 0614690738-0
Telefax: 061469073845
E-mail: info@curtis-systems.de
E-mail (competent person): weimer@curtis-systems.de

1.4. Emergency telephone number

Technical department:, 06146-90738-33 (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]:

Hazard classes and hazard categories	Hazard statements	Classification procedure
Corrosive to metals *(Met. Corr. 1)*	H290: May be corrosive to metals.	
Acute toxicity (oral) *(Acute Tox. 4)*	H302: Harmful if swallowed.	
Skin corrosion/irritation *(Skin Corr. 1A)*	H314: Causes severe skin burns and eye damage.	

Classification according to Directive 67/548/EEC or 1999/45/EC:

not relevant

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms:

GHS05
Corrosion

GHS07
Exclamation mark

Signal word: Danger

Hazard components for labelling:

potassium hydroxide.

hazard statements for physical hazards	
H290	May be corrosive to metals.

hazard statements for health hazards	
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

Supplemental Hazard information (EU): -

Precautionary statements Prevention	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements Response	
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.

2.3. Other hazards

Other adverse effects:

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Description:

Mixture of potassium hydroxide in aqueous solution.

Additional information:

Substance with a common (EC) occupational exposure limit value. See section 8.

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to 67/548/EEC Classification according to Regulation (EC) No. 1272/2008 [CLP]	Concentration
CAS No.: 1310-58-3 **EC No.:** 215-181-3 **REACH No.:** 01-2119487136-33-0000	**potassium hydroxide** Skin Corr. 1A, Met. Corr. 1, Acute Tox. 4  **Danger** H290-H302-H314	= 50 Wt %

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

Change contaminated, saturated clothing.
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Following inhalation:

Following inhalation - Provide fresh air.
In case of respiratory tract irritation, consult a physician.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap.
In case of skin irritation, consult a physician.

After eye contact:

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

After ingestion:

Let water be drunken in little sips (dilution effect).
Do NOT induce vomiting.
Call a physician immediately.

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

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Suitable extinguishing media Sand alcohol resistant foam Extinguishing powder Dry extinguishing powder

Unsuitable extinguishing media:

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Gases/vapours, corrosive

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Keep unprotected people away and stay on the upwind side.
Special danger of slipping by leaking/spilling product.

6.1.2. For emergency responders

No data available

6.2. Environmental precautions

Do not allow to enter into surface water or drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up

For cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Collect in closed containers for disposal.

6.4. Reference to other sections

No data available

6.5. Additional information

See section 8. + 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

All work processes must always be designed so that the following is as low as possible: Inhalation Skin contact Eye contact
Always close containers tightly after the removal of product.

Fire prevent measures:

Usual measures for fire prevention.

Environmental precautions:

Shafts and sewers must be protected from entry of the product.

Advices on general occupational hygiene

Wash hands before breaks and after work.
Use protective skin cream before handling the product.
When using do not eat, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Floors should be impervious, resistant to liquids and easy to clean.

Requirements for storage rooms and vessels:

Keep container tightly closed. Provide for retaining containers, eg. floor pan without outflow.
Keep/Store only in original container.

Hints on storage assembly:

Materials to avoid: Oxidising agent, Acid,

Storage class: 8 B

Further information on storage conditions:

Further information on storage conditions Protect against: Heat Frost
Recommended storage temperature 15-25 °C
storage stability max. 1 year.

7.3. Specific end use(s)

Recommendation:

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

8.2.2. Personal protection equipment

Eye/face protection:

Tightly sealed safety glasses.

Skin protection:

Hand protection: Tested protective gloves must be worn - alkali-resistant / acid-resistant
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.
Suitable material: Suitable material: NBR (Nitrile rubber) Butyl caoutchouc (butyl rubber)
Thickness of the glove material: 0,7 mm
Breakthrough time (maximum wearing time): > 480

Respiratory protection:

With correct and proper use, and under normal conditions, breathing protection is not required.
If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Other protection measures:

Protective clothing: Only wear fitting, comfortable and clean protective clothing.
Set out skin protection guidelines. Before starting work, apply water-resistant skincare preparations.
Avoid contact with skin, eyes and clothes.

8.2.3. Environmental exposure controls

No data available

8.3. Additional information

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: liquid
Colour: colourless
Odour: odourless

Safety relevant basis data

parameter		at °C	Method	remark
pH	≈ 14	20 °C		10%
Melting point/freezing point	*not determined*			
Freezing point	*not determined*			
Initial boiling point and boiling range	≈ 146 °C			
Decomposition temperature (°C):	*not determined*			
Flash point	*not applicable*		DIN EN ISO 2592	
Evaporation rate	*not determined*			
Ignition temperature in °C	*not determined*			

parameter		at °C	Method	remark
Upper/lower flammability or explosive limits	*No data available*			
Vapour pressure	*No data available*			
Vapour density	*not determined*			
Density	1.5 g/cm³	20 °C	DIN EN ISO 12185	
Bulk density	*not determined*			
Water solubility (g/L)	completely miscible			
Partition coefficient: n-octanol/water	*not determined*			
Dynamic viscosity	78 mPa*s	20 °C		
Kinematic viscosity	*not determined*			

9.2. Other information
No data available

SECTION 10: Stability and reactivity

10.1. Reactivity
There are no data available on the mixture itself.

10.2. Chemical stability
The product is stable.

10.3. Possibility of hazardous reactions
Exothermic reactions with: Acid
The product develops hydrogen in an aqueous solution in contact with metals.

10.4. Conditions to avoid
Protect against: Heat Frost

10.5. Incompatible materials
Materials to avoid Oxidising agent, Acid

10.6. Hazardous decomposition products
No decomposition under normal conditions.
Combustion products: Gases/vapours, corrosive

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute oral toxicity:
potassium hydroxide. :
Acute toxicity (oral) : LD50: 273 mg/kg (Rat)

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

Skin corrosion/irritation:
potassium hydroxide.
Irritant effect on the skin: Rabbit, strongly corrosive.

Eye damage/irritation:
potassium hydroxide.
Eye damage/irritation : Rabbit, strongly corrosive.

Respiratory or skin sensitisation:
not sensitising.

Carcinogenicity:
The components in this formulation do not meet the criteria for classification as CMR category 1 or 2.

STOT-single exposure:
Not known.

STOT-repeated exposure:
Not known.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:

There are no data available on the mixture itself.

12.2. Persistence and degradability

Biodegradation:

Part of the components is biodegradable. No information available.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

12 01 09 *	machining emulsions and solutions free of halogens
06 02 04 *	Sodium and potassium hydroxide

*: Evidence for disposal must be provided.

Waste code packaging:

15 01 10	packaging containing residues of or contaminated by dangerous substances

Waste treatment options

Appropriate disposal / Package:

Dispose of waste according to applicable legislation. Delivery to an approved waste disposal company.

Other disposal recommendations:

Non-contaminated packages may be recycled.

13.2. Additional information

No data available

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN-No.			
1814	1814	1814	1814
14.2. UN proper shipping name			
POTASSIUM HYDROXIDE SOLUTION	POTASSIUM HYDROXIDE SOLUTION	POTASSIUM HYDROXIDE SOLUTION	POTASSIUM HYDROXIDE SOLUTION
14.3. Transport hazard class(es)			
 8	 8	 8	 8
14.4. Packing group			
II	II	II	II

Land transport (ADR/ RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.5. Environmental hazards			
No	No	No	No
14.6. Special precautions for user			
Special provisions: **Limited quantity (LQ):** 1 L **Hazard identification number (Kemler No.):** 80 **Classification code:** C5 **tunnel restriction code:** E **remark:**	**Special provisions:** **Limited quantity (LQ):** **Classification code:** C5 **remark:**	**Special provisions:** **Limited quantity (LQ):** **EmS-No.:** F-A / ; S-B **remark:**	**Special provisions:** **Limited quantity (LQ):** **remark:**

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No data available

SECTION 15: Regulatory information

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

15.1.1. EU legislation
No data available

15.1.2. National regulations

[DE] National regulations

Störfallverordnung

remark:

-

Water hazard class (WGK)

WGK:

1 - schwach wassergefährdend

Source:

Anh. 4

15.2. Chemical Safety Assessment
No information available.

15.3. Additional information
No data available

SECTION 16: Other information

16.1. Indication of changes
(previous version: 2011.1)
28.04.2015 point 2 / 3

16.2. Abbreviations and acronyms
No data available

16.3. Key literature references and sources for data
No data available

16.4. Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]

Classification according to Regulation (EC) No. 1272/2008 [CLP]:

Hazard classes and hazard categories	Hazard statements	Classification procedure
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Acute toxicity (oral) *(Acute Tox. 4)*	H302: Harmful if swallowed.	
Skin corrosion/irritation *(Skin Corr. 1A)*	H314: Causes severe skin burns and eye damage.	

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

16.6. Training advice

No data available

16.7. Additional information

No data available