



! 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Name of product elma elektrolytsalz-lösung

Manufacturer/distributor ELMA Hans Schmidbauer GmbH & Co KG

! Recommended intended purpose(s)
Electrolytic solution for hydrogen soldering devices.

! 2. HAZARDS IDENTIFICATION

! Classification

Xn; R22
C; R35

R-phrases

22 Harmful if swallowed.
35 Causes severe burns.

Special hazards information for humans and environment

Causes severe burns.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization

Potash lye.

Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification
1310-58-3	215-181-3	potassium-hydroxide	30 - 40	Xn R22; C R35

4. FIRST AID MEASURES

General information

Remove contaminated soaked clothing immediately and dispose it safely.

In case of skin contact

In case of contact with skin wash off immediately with plenty of water.
Consult a doctor if skin irritation persists.

In case of eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

In case of ingestion

Call for a doctor immediately.



Refer to medical treatment.
Rinse out mouth and give plenty of water to drink.

Physician's information / possible dangers

Risk of stomach perforation

Treatment (Advice to doctor)

Keep under medical supervision for at least 48 hours.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

water

Extinguishing media which must not be used for safety reasons

no

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protection.

Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Do not discharge into the subsoil/soil.

Methods for cleaning up

Take up with absorbent material (e.g. general-purpose binder).

Flush away residues with water.

Use chemical neutralizers.

After taking up the material dispose according to regulation.

7. HANDLING AND STORAGE

Advice on safe handling

Open and handle container with care!

Advice on protection against fire and explosion

The product is not combustible.

Requirements for storage rooms and vessels

Provide alkali-resistant floor.

Keep only in original container.

Advice on storage compatibility

Do not store with acids.

Further information on storage conditions

Keep container tightly closed.

Keep locked up, out of reach of children

Do not keep at temperatures below 5°C.

Information on storage stability

Storage time: 3 years.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Hand protection

Gloves (alkali-resistant)

Glove material specification [make/type, thickness, permeation time/life]: Butyl, 0,5mm, >=8h.

Glove material specification [make/type, thickness, permeation time/life]: NBR, 0,35mm, >=8h.

Glove material specification [make/type, thickness, permeation time/life]: NR, 0,5mm, >=8h.

Glove material specification [make/type, thickness, permeation time/life]: PVC, 0,5mm, >=8h.

Eye protection

tightly fitting goggles

General protective measures

Avoid contact with eyes and skin

Hygiene measures

Provide washing facilities at place of work.

Remove soiled or soaked clothing immediately.

Keep away from food and drink.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form

liquid

Colour

colourless, clear

Odour

almost odourless

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value in delivery state	> 14				
boiling range	> 100 °C				
solidifying range	< 0 °C				
Flash point					no
Density	1,352 g/cm ³	20 °C			
Solubility in water					miscible
Solvent concentration	0 %				
Oxidizing properties	no				
Explosive properties	no				
Additional information	Product effects hygroscopic.				

10. STABILITY AND REACTIVITY

Conditions to avoid

Reactions with acids.

Materials to avoid

Reactions with acids.

Reactions with light metals, with evolution of hydrogen.

Hazardous decomposition products

no



11. TOXICOLOGICAL INFORMATION

Acute toxicity/Irritability/Sensitization

	Value/Validation	Species	Method	Remark
LD 50 acute oral	214 - 324 mg/kg	rat		Value of potassium hydroxide.
Irritability skin	strong corrosive			
Irritability eye	strong corrosive			
Skin sensitization	non-sensitizing			

Experiences made from practice

Causes strong corrosions.

12. ECOLOGICAL INFORMATION

Data on elimination (persistence and degradability)

	Elimination rate	Method of analysis	Method	Validation
Physico-chemical degradability	100 %		Neutralization, pH-measurement	Alkaline properties can be eliminated up to 100% by neutralization.

Additional ecological information

	Value	Method	Remark
AOX			The product does not contain any organically bound halogens according to the recipe.

General regulation

Do not allow uncontrolled leakage of product into the environment.

13. DISPOSAL CONSIDERATIONS

Waste code No.	Name of waste
20 01 15*	alkalines

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 91/689/EEC on hazardous waste.

Recommendations for the product

Neutralize with acetic acid (60%, liquid) or citric acid (solid powder, crystallized).

Product is allowed to discharge into sewage treatment plants, but in accordance with official regulations.

Recommendations for packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Recommended cleansing agent

Water



14. TRANSPORT INFORMATION

Land and inland navigation transport ADR/RID

UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, II

Marine transport IMDG

UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, II

Air transport ICAO/IATA-DGR

UN 1814 POTASSIUM HYDROXIDE SOLUTION, 8, II

15. REGULATORY INFORMATION

Remarks for classification

The product is classified and labelled in accordance with EC directives/German regulations on dangerous substances.

Classification

C Corrosive

R-phrases

22 Harmful if swallowed.
35 Causes severe burns.

S-phrases

1/2 Keep locked up and out of reach of children.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
28 After contact with skin, wash immediately with plenty of water.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Hazardous ingredients for labeling

potassium-hydroxide

VOC standard

VOC content 0 %

16. OTHER INFORMATION

Further information

These data are given according to our actual knowledge about this product. This data sheet does not correspond to an assurance by virtue of a contract for properties of the product.

Sources of key data used

Own measurements.

Wording of the R-phrases specified in chapter 3 (not the classification of the formulation!)

R 22 Harmful if swallowed.
R 35 Causes severe burns.

elma elektrolytsalz-lösung

LIQUID ELECTROLYTE FOR HYDROGEN SOLDERING DEVICES

Description

Ready for use, liquid, aqueous alkaline electrolyte for the hydrogen soldering devices „Elmaflame“ 140, 240 and 300 as well as for „Hot Flame“ Eco HF 10, HF 50, HF 100, HF 150 and HF 300 and also for Elma HT 2 and Elma HT 3.

Application and dosage

Fill the elma elektrolytsalz-lösung slowly into the devices Hot Flame HF 50, Eco HF 10, HF 100, HF 150, HF 300, Elma HT 2 and Elma HT 3: 1L; into Elmaflame 140: 1.6L; into Elmaflame 240 as well as into Elmaflame 300: 4L (observe the manual of the device and the level indicator).

Then fill additionally and slowly distilled water with the following amounts up to the corresponding maximum level into the corresponding devices (observe the manual and the level indicator of the device):

For Elmaflame 240 and Elmaflame 300: ~0.1L.

For the other devices, except for Hot Flame HF 50: HF 10 ~0.5L; HF 100 ~0.2L; HF 150 ~0.7L; HF 300 ~0.7L; HT 2 and HT 3 ~0.5L.

For the Elma Hot Flame device HF 50 no distilled water has to be added.

Safety recommendations

elma elektrolytsalz-lösung is classified as Corrosive and Harmful (C, R22-35) according to the German regulations on dangerous substances / EC directives. Observe the hints indicated in the Safety Data Sheet. Always handle chemicals with care.

Physical-chemical characterisation

Potash lye. Density: 1.352 g/ml, pH value: >14 in delivery state.

Disposal

The product and the solution can be fed into the public sewage system after neutralization (observe local sewage regulations) or dispose via specialised disposal companies.

European waste code: 20 01 15*, „alkalines“.

Volumes and storage

Available volumes: 1 L, PE-bottle.

Store in closed original container only at temperatures above 5°C and not together with acids.

Shelf life: 3 years from date of production (see stamp on label).

Classification for all means of transport: class 8, UN 1814.

