elma product info

elma flux

READY-FOR-USE FLUX
FOR HYDROGEN SOLDERING AND WELDING EQUIPMENT

Description
elma flux is a liquid, ready-for-use flux based on methanol for soldering using hydrogen flame, acts deoxidizing and makes the flame visible by green colour.

Application and dosage
Ready for use. For the hydrogen soldering equipments „Hot Flame“ Eco HF 10, HF 50, HF 100, HF 150, HF 300, HF 350 and HF 500 (observe the manual of the devices and fill into the flux container of these devices only).

Hotline for application consulting
Working days: Tel. ++49 (0) 7731 882-287. Email: chemlab@elma-ultrasonic.com

Safety recommendations
elma flux is classified as Highly flammable and Toxic (F, T, R11-23/24/25-39/23/24/25) according to the German regulations on dangerous substances / EC directives. Observe the hints indicated in the Safety Data Sheets. Always handle chemicals with care.
Provide suitable exhaustion at the soldering and welding equipment - Do not breathe combustion gases !

Physicochemical characterisation
Density: 805 g/l, flash point: -18°C. Contains methanol, desoxydation agent and additive for green color of soldering flame.

Disposal
1. Dispose via specialised disposal companies: European waste code: 14 06 03*, „other solvents and solvent mixtures“ 2. Incinerate in suitable incineration plant, but care for official regulations.
Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Do not discharge product unmonitored into the environment. Recommended for recycling or disposal. Transport in appropriate suitable containers.

Volumes, storage and transport
Available volumes: 1L bottle.
Store in tightly closed original container only at a dry, cool and ventilated place and protected from heat, direct solar radiation, atmospheric moisture and water. Store and transport separate of food. Do not store together with feedstuffs, acids and oxidizing agents. Do not mix with other chemicals. Keep away from ignition sources. Keep under lock and key or accessible only to specialists or people authorized by them.
Shelf life: 2 years in original, unopened container from date of production (see stamp on label).
Classification for all means of transport: class 3 (6.1), UN 1230.

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

Name of product elma flux

Manufacturer/distributor ELMA Hans Schmidbauer GmbH & Co KG

Recommended intended purpose(s)
Flux with additive for green color of soldering flame for soldering using hydrogene flame.

! 2. HAZARDS IDENTIFICATION

! Classification
F; R11
T; R23/24/25
T; R39/23/24/25

R-phrases

11	Highly flammable.
23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
39/23/24/25	Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

! 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization
Mixture from methanol and desoxydation agent.

! Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification
67-56-1	200-659-6	methanol	90 - 100	F R11; T R23/24/25-39/23/24/25
121-43-7	204-468-9	trimethyl borate	< 10	F R11; Xn R21

! 4. FIRST AID MEASURES

General information
Remove contaminated soaked clothing immediately and dispose it safely.
Take affected person into fresh air.
Seek medical treatment immediately.

In case of inhalation
Remove the casualty into fresh air and keep him immobile.
Refer for medical treatment.

! In case of skin contact
In case of contact with skin wash off immediately with plenty of water.
Seek medical advice immediately.

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
Let the patient vomit by him self only if within 1 hour no physician could be reached and only if he is fully conscious.
Call for a doctor immediately.
Rinse out mouth and give some water to drink.

! Physician's information / possible symptoms
Eye defects
Headache
Nausea
Dizziness

Physician's information / possible dangers
Risk of growing blind.
Risk of pulmonary oedema

Treatment (Advice to doctor)
Give antidote: 4-methylpyrazole (CAS No: 7554-65-6), trade name in D, A: Fomepizole OPi; or ethanol. Call back to Poisons Information Centre recommended.
If swallowed and if necessary, flush stomach.
Keep under medical supervision for at least 48 hours.

! 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Alcohol-resistant foam
Dry powder
Carbon dioxide
Water spray jet

! Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases
Methanol
Diboron trioxide

! Special protective equipment for fire-fighters
Use breathing apparatus with independent air supply (isolated).
Do not inhale explosion and/or combustion gases.

Additional information
Cool endangered containers with water spray jet.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Ensure adequate ventilation.
Use personal protection.
Keep away sources of ignition.
Pay attention to extension of gas especially at ground (heavier than air) and in direction of the wind.

Environmental precautions
Do not discharge into the drains/surface waters/groundwater.
Suppress gases/vapours/mists with water spray jet
Do not discharge into the subsoil/soil.

Methods for cleaning up
Send in suitable containers for recovery or disposal.

Take up with absorbent material (e.g. kieselguhr).

! 7. HANDLING AND STORAGE

! Advice on safe handling
Open and handle container with care!
Keep container tightly closed.
Provide suitable exhaustion at the soldering and welding equipment.
Use only in well-ventilated areas.
Use solvent-resistant equipment.
Keep limited supplies at workplace.

Advice on protection against fire and explosion
Keep away from sources of ignition - No smoking
The product is easy combustible.
Vapours can form an explosive mixture with air.
Take precautionary measures against static discharges.

Requirements for storage rooms and vessels
Keep only in unopened original container.

! Advice on storage compatibility
Do not store with acids.
Store and transport separate of food.
Do not store together with animal feedstuffs.
Do not store together with oxidizing agents.

! Further information on storage conditions
Keep locked up, out of reach of children
Protect from atmospheric moisture and water
Protect from heat and direct solar radiation.
Keep container dry, tightly closed and store at cool and aired place.
Keep under lock and key or accessible only to specialists or people authorized by them.

Information on storage stability
Storage time: 24 months.

! 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional advice on system design
Technical exhaustion if there is a long-term exposition

Indicative occupational exposure limit values (91/322/EEC, 2000/39/EC or 2006/15/EC)

CAS No	Name	Code	[mg/m3]	[ppm]	Remark
67-56-1	methanol	8 hours	260	200	skin

Additional advice

! Hand protection
Protective gloves
Glove material specification [make/type, thickness]: FKM, 0,4mm.

Eye protection
tightly fitting goggles

Skin protection
light protective clothing

! General protective measures
Do not inhale vapours.
Avoid contact with eyes and skin

Do not breathe combustion gases.

! Hygiene measures
Provide washing facilities at place of work.
Keep away from food and drink.
Wash hands before breaks and after work.

! 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	**Colour**	**Odour**
liquid	colourless	of methanole

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
boiling range	>= 55 °C				
solidifying point	-98 °C				
Flash point	-18 °C				
Vapour pressure	ca. 185 mbar	20 °C			
Density	0,805 g/cm3	20 °C			
Solubility in water					miscible
Solvent concentration	90 - 100 %				

! Oxidizing properties
no

! Additional information
Vapours are heavier than air.

! 10. STABILITY AND REACTIVITY

! Conditions to avoid
Formation of explosive gas/air mixtures.
Heat and direct solar radiation.
Reactions with water.
Reactions with damp air.

! Materials to avoid
Reactions with acids.
Reactions with oxidising agents.
Reactions with alkali metals.
Reactions with earth alkali metals.

! Hazardous decomposition products
In the event of fire the following can be released:
Diboron trioxide

11. TOXICOLOGICAL INFORMATION

Acute toxicity/Irritability/Sensitization

	Value/Validation	Species	Method	Remark
LD 50 acute oral	5628 mg/kg	rat		
LD 50 acute dermal	15800 mg/kg	rabbit		
LC 50 acute inhalation	6400 ppm (4 h)	rat		

Experiences made from practice
May be absorbed through the skin.
If swallowed risk of blindness already with about 15 ml.
Has a degreasing effect on the skin.

Additional information
The declarations of toxicology refer to main component.

12. ECOLOGICAL INFORMATION

Data on elimination (persistence and degradability)

	Elimination rate	Method of analysis	Method	Validation
Physico-chemical degradability		GC substance decrease	Activated charcoal adsorption	Slightly eliminable from water

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.
Product is not allowed to be discharged into aquatic environment.

13. DISPOSAL CONSIDERATIONS

Waste code No.	**Name of waste**
14 06 03*	other solvents and solvent mixtures

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

Recommendations for the product
Incinerate in suitable incineration plant, but care for official regulations.

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

Recommended cleansing agent
Water

! 14. TRANSPORT INFORMATION

Land and inland navigation transport ADR/RID
UN 1230 METHANOL, 3(6.1), II, (D/E)
Marine transport IMDG
UN 1230 METHANOL, 3(6.1), II
Air transport ICAO/IATA-DGR
UN 1230 METHANOL, 3(6.1), II

! 15. REGULATORY INFORMATION

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

Classification

F	Highly flammable
T	Toxic

R-phrases

11	Highly flammable.
23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
39/23/24/25	Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

S-phrases

1/2	Keep locked up and out of reach of children.
16	Keep away from sources of ignition - No smoking.
36/37	Wear suitable protective clothing and gloves.
45	In case of accident or if you feel unwell, seek medical advice immediately (show the lable where possible).
7	Keep container tightly closed.

Hazardous ingredients for labeling
methanol

VOC standard

VOC content	90-100 %

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 11 Highly flammable.
R 21 Harmful in contact with skin.
R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R 39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.