



MATERIAL SAFETY DATA SHEET
According to 91/155/EEC and 2001/58/EC

1 IDENTIFICATION OF THE PREPARATION AND COMPANY

PRODUCTNAME: **FARBANET**

INTENDED USE: Glass cleaner

MANUFACTURER: FARBALL HOLLAND B.V.
Nieuwe Donk 15
4879 AC Etten-Leur
tel.: +31 (0)76 5034520
fax: +31 (0)76 5014591
e-mail: vgm @farball.nl

Emergency phone number: +31 (0)30 274 8888 Nationaal Vergiftigingen Informatie Centrum. This emergency phone number is intended to give medical advice to doctors.

2 COMPOSITION/INFORMATION ON THE INGREDIENTS

Substances presenting a health hazard within the meaning of the CHIP regulations or assigned occupational exposure limits.

Chemical name	Concentration	Symbol	R-phrases ⁽¹⁾	EG/CAS nr.
Hydrofluoric acid	10 – 15 %	T+, C	26/27/28, 35	7664-39-3
Sulphuric acid	20 – 30 %	C	35	7664-93-9

⁽¹⁾ For full text see section 16

3 HAZARD IDENTIFICATION OF THE PREPARATION

Symbol T+ Very toxic
C Corrosive

R-phrases R26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.
R35 Causes severe burns.

4 FIRST AID MEASURES

General information:

Qualified medical attention is required! Remove all contaminated clothing while washing continuously. The burned area should be immersed in a solution of 0.13% iced aqueous banzalconiumchloride until pain is relieved. As an alternate first aid treatment, 2.5% calcium gluconate gel may be continuously massaged into the burn area until the pain is relieved. For larger burns or burns treated with calcium gluconate gel in which pain is present longer than 30 minutes, a physician should inject 5% aqueous calcium gluconate beneath, around and in the burned area. Use of local anaesthetics is not recommended, as reduction in pain is an indicator of effectiveness of treatment.

After inhalation:

Move to fresh air. Keep the victim lying down, quiet and warm. If unconscious, place in the recovery position and get competent medical attention immediately.

After skin contact:

Wash the burned area with plenty of water for a minimum of 15 minutes. After washing, the burned area should be immersed in a solution of calcium gluconate or calcium gluconategel. Treatment of hydrofluoric acid burns should always be done by a specialist. The effects of contact with dilute solutions of hydrofluoric acid or its vapours may be delayed. The potential delay in clinical signs or symptoms for dilute solutions can occur up to 24 hours later. Symptoms might include pain, redness of the skin and possible tissue destruction.

After eye contact:

Get competent medical attention immediately, preferably an eye specialist! Irrigate eyes for at least 15 minutes with copious quantities of water, keeping eyelids apart and away from eyeballs during irrigation. If a physician is not immediately available, apply one or two drops of 0.5% tetracaine hydrochloride solution or other aqueous topical ophthalmic aesthetic and continue irrigation. Do not use the solution described for skin treatment. Use no oils or greases unless instructed to do so by a physician. Irrigate with 1% calcium gluconate in normal saline for 1 to 2 hours to prevent or lessen corneal damage.

After swallowing:

Qualified medical attention is required! Drink large amounts of water to dilute. Several glasses of milk or several ounces of milk of magnesia may be given for their soothing effect. Do **not** induce vomiting. Call for a doctor immediately.

Advice to physician

Symptoms:

Monitor and correct for hypocalcemia, cardiac arrhythmias, hypomagnesemia and hyperkalemia. In some cases hemodialysis may be indicated. For burns of large skin areas (greater than 25 square inches), for ingestion and for significant inhalation exposure, severe systemic effects may occur.

Treatment:

For certain burns, especially of the digits, use of intra-arterial calcium gluconate may be indicated. For inhalation exposures, treat as chemical pneumonia. Monitor for hypocalcemia. 2.5% calcium gluconate in normal saline by nebulizer or by IPPB with 100% oxygen may decrease pulmonary damage. Bronchodilators may also be administered.

5 FIRE FIGHTING MEASURES

Extinguishing media:

Carbon dioxide or powder.

Fight larger fires with water spray or alcohol resistant foam. **Will react violently with water.**

Special fire fighting precautions/instructions :

Wear full chemical protective clothing.

Wear a self-contained breathing apparatus approved by NIOSH.

6 ACCIDENTAL RELEASE MEASURES

Personnel precautions:

Those treating spills or repairing leaks must use full protective equipment. Wear self-contained breathing apparatus approved by NIOSH and full chemical protective clothing. Keep unprotected persons away.

Measures for environmental protection:

Do not allow to enter sewers/surface or ground water.

Measures for cleaning/collecting:

Carefully neutralize the dilute liquid with lime slurry, soda ash, limestone, caustic soda or other alkaline material. Dispose contaminated material as waste according to item 13.

7 HANDLING AND STORAGE

Handling

Information for safe handling:

Do not add water to acid, only add acid to water. Use only with adequate ventilation. Always wear recommended personal protective equipment.

Information about fire- and explosion protection:

No special requirements.

Storage

Requirements for storage:

Store in cool and well-ventilated area. Store in approved containers only. Keep container tightly sealed. Store separately from base and oxidising materials. Flammable hydrogen gas can be generated in contact with metals.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits

Chemical name	CAS nr.	TWA 15 min (mg/m ³)
Fluorwaterstofzuur	7664-39-3	2,5

Origin: MSDS raw materials

TWA: Time Weighted Average

Personal protection

Respiratory protection: Self-contained breathing apparatus.

Hand protection: Rubber gloves.

Eye protection: Tightly sealed goggles.

Skin protection: Acid-resistant protective suit.

Additional recommendations:

Avoid exposure. Before using this product, ask for special directions. Protect skin with protective salve. Store working clothes separately. Take contaminated clothing off immediately. Do not put soaked cleaning rags in trouser pockets. Keep away from food and beverage.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Colour	colourless
Odour	sharp pungent odour
Density (20 °C)	1,20 - 1,24 kg/l
Solubility in water	soluble
pH	very strong acid
Flashpoint	not applicable
Explosion limits	not applicable

10 STABILITY AND REACTIVITY

Incompatibilities :

Base
Oxidising materials

Hazardous decomposition products :

Toxic gasses/vapours
Sulphur dioxide
Hydrofluoric acid
Hydrogen

Remark:

Considerable heat is evolved and a violent reaction can occur when water is added. Long-term exposure will corrode glass and silicon bearing materials. Will corrode metals. Flammable hydrogen gas can be generated in contact with metals.

11 TOXICOLOGICAL INFORMATION

Hydrofluoric acid:

Inhalation mouse LC50	6,247 ppm/5 min (Origin : MSDS raw materials)
Inhalation rat LC50	5,100 ppm/5 min (Origin: MSDS raw materials)
Inhalation rat LC50	6,247 ppm/60 min (Origin: MSDS raw materials)

Sulphuric acid

Oral rat LD50	2140 mg/kg (Origin: MSDS raw materials)
Inhalation rat LC50	510 mg/l (4 hours) (Origin: MSDS raw materials)

Other data :

Corrosive. Very toxic. Causes severe burns. Can cause permanent damage to health. Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 ECOLOGICAL INFORMATION

Water hazard class2 (German Regulation) (self-assessment): hazardous for water.
Do not allow undiluted or un-neutralized product or large quantities of it to reach ground water, water course or sewage system.

13 DISPOSAL CONSIDERATIONS**Product:**

Treat unused product as hazardous waste. Do not allow to enter drains or water courses.

Unclean packages:

Dispose in accordance with local legislation.

14 TRANSPORT INFORMATION**Road (ADR)**

Technical name: Hydrofluoric acid and sulphuric acid mixture
UN-number: UN1786
Class: 8 (CT1)
Packaging group: I
Label: 8 + 6.1

15 REGULATORY INFORMATION

Contains	Hydrofluoric acid, sulphuric acid	
Symbol	T+	Very toxic
	C	Corrosive
R-phrases	R26/27/28	Very toxic by inhalation, in contact with skin and if swallowed.
	R35	Causes severe burns.
S-phrases	S23	Do not breathe spray.
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S27/28	After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and treat the skin with a 2,5% calcium gluconate gel.
	S38	In case of insufficient ventilation, wear suitable respiratory equipment.
	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 label where possible)
P-phrases	P94	Treat empty containers as chemical waste.

16 OTHER INFORMATION

Text of R-phrases listed in section 2:

Symbol	T+	Very toxic
	C	Corrosive
R-phrases	R26/27/28	Very toxic by inhalation, in contact with skin and if swallowed.
	R35	Causes severe burns.

The information contained in this safety data sheet is provided in accordance with the requirements of the CHIP Regulations.

This product should not be used for purposes other than those shown in section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.

The information contained in this safety data sheet is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.