Porcelain Etchant (4% HF)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 01/20/2017 Version: 1.0

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

1.1. Product identifier

Product form : Mixture

Product name : Porcelain Etchant (4% HF)

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Porcelain Etchant
For Rx Only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer
Bisco, Inc.
1100 W. Irving Park Rd.
60193 Schaumburg, IL
T 847.534.6000 - F 847.891.5049
sales@bisco.com - www.bisco.com

EC Representative:
Bisco France, 120, allée de la Coudoulette, 13680 Lançon de Provence, France
Telephone: 33-4-90-42-92-92

1.4. Emergency telephone number

Emergency number : CHEMTREC - 24-Hour Hazmat Emergency Communications Center
Domestic: 1-800-424-9300 Outside the U.S.: 1-703-527-3887, collect calls accepted

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (oral), Category 2	H300
Acute toxicity (dermal), Category 1	H310
Acute toxicity (inhalation:dust,mist) Category 2	H330
Skin corrosion/irritation, Category 1A	H314
Sensitisation — Respiratory, Category 1	H334
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS05 GHS06 GHS08

Signal word (CLP) : Danger

Hazard statements (CLP) : H300+H310+H330 - Fatal if swallowed, in contact with skin or if inhaled
H314 - Causes severe skin burns and eye damage
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation

Precautionary statements (CLP) : P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P330 - Rinse mouth
P403+P233 - Store in a well-ventilated place. Keep container tightly closed

P501 - Dispose in a safe manner in accordance with local/national regulations

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Polyacrylamidomethylpropane Sulfonic acid	(CAS No) 27119-07-9	50 - 75	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 STOT SE 3, H335
Hydrofluoric Acid, 47 - 51% substance with a Community workplace exposure limit	(CAS No) 7664-39-3 (EC no) 231-634-8 (EC index no) 009-003-00-1	7 - 9	Not classified

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Hydrofluoric Acid, 47 - 51%	(CAS No) 7664-39-3 (EC no) 231-634-8 (EC index no) 009-003-00-1	(0.1 =<C < 1) Eye Irrit. 2, H319 (1 =<C < 7) Skin Corr. 1B, H314 (C >= 7) Skin Corr. 1A, H314

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Immediately call a POISON CENTER or doctor/physician. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

First-aid measures after skin contact : Immediately call a POISON CENTER or doctor/physician. Specific measures (see ... on this label). Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Rinse skin with water/shower.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Immediately call a POISON CENTER or doctor/physician. Specific treatment (see First aid measures on this label). Do NOT induce vomiting.

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

Symptoms/injuries : Causes severe skin burns and eye damage.

Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Symptoms/injuries after skin contact : Fatal in contact with skin.

Symptoms/injuries after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

No additional information available

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

No additional information available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

No additional information available

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Use only outdoors or in a well-ventilated area. Avoid breathing mist, vapours. Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact during pregnancy/while nursing.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hydrofluoric Acid, 47 - 51% (7664-39-3)		
EU	IOELV TWA (mg/m³)	1.5 mg/m³ (Hydrogen fluoride; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV TWA (ppm)	1.8 ppm (Hydrogen fluoride; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
EU	IOELV STEL (mg/m³)	2.5 mg/m³ (Hydrogen fluoride; EU; Short time value; Indicative occupational exposure limit value)
EU	IOELV STEL (ppm)	3 ppm (Hydrogen fluoride; EU; Short time value; Indicative occupational exposure limit value)
Belgium	Limit value (mg/m³)	1.5 mg/m³ (Hydrogène (fluorure d'); Belgium; Time-weighted average exposure limit 8 h)
Belgium	Limit value (ppm)	1.8 ppm (Hydrogène (fluorure d'); Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m³)	2.5 mg/m³ (Hydrogène (fluorure d'); Belgium; Short time value)
Belgium	Short time value (ppm)	3 ppm (Hydrogène (fluorure d'); Belgium; Short time value)
France	VME (mg/m³)	1.5 mg/m³ (Fluorure d'hydrogène; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	VME (ppm)	1.8 ppm (Fluorure d'hydrogène; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante)
France	VLE (mg/m³)	2.5 mg/m³ (Fluorure d'hydrogène; France; Short time value; VRC: Valeur réglementaire contraignante)
France	VLE (ppm)	3 ppm (Fluorure d'hydrogène; France; Short time value; VRC: Valeur réglementaire contraignante)
Netherlands	Grenswaarde TGG 15MIN (mg/m³)	1 mg/m³ (Fluorwaterstof (als F); Netherlands; Short time value; Public occupational exposure limit value; als F)
Netherlands	Grenswaarde TGG 15MIN (ppm)	1.2 ppm (Fluorwaterstof (als F); Netherlands; Short time value; Public occupational exposure limit value; als F)

Hydrofluoric Acid, 47 - 51% (7664-39-3)		
United Kingdom	WEL TWA (mg/m³)	1.5 mg/m³ Hydrogen fluoride (as F); United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL TWA (ppm)	1.8 ppm Hydrogen fluoride (as F); United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (mg/m³)	2.5 mg/m³ Hydrogen fluoride (as F); United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
United Kingdom	WEL STEL (ppm)	3 ppm Hydrogen fluoride (as F); United Kingdom; Short time value; Workplace exposure limit (EH40/2005)
USA - ACGIH	ACGIH TWA (ppm)	0.5 ppm (Hydrogen fluoride, as F; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
USA - ACGIH	ACGIH Ceiling (ppm)	2 ppm (Hydrogen fluoride, as F; USA; Momentary value; TLV - Adopted Value)

8.2. Exposure controls

Eye protection:

Chemical goggles or face shield

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of inadequate ventilation wear respiratory protection

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Apperance	:	Gel
Colour	:	Orange
Odour	:	Odorless.
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Thermal decomposition generates : Corrosive vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Fatal if swallowed. Dermal: Fatal in contact with skin. Inhalation:dust,mist: Fatal if inhaled.

ATE CLP (oral)	5.000 mg/kg bodyweight
ATE CLP (dermal)	5.000 mg/kg bodyweight
ATE CLP (dust,mist)	0.050 mg/l/4h

Polyacrylamidomethylpropane Sulfonic acid	**(27119-07-9)**
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	N/A
LD50 dermal rabbit	N/A
LC50 inhalation rat (ppm)	N/A
LC50 inhalation rat (Dust/Mist - mg/l/4h)	N/A mg/l/4h
LC50 inhalation rat (Vapours - mg/l/4h)	N/A mg/l/4h

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Serious eye damage, category 1, implicit

Respiratory or skin sensitisation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : May cause respiratory irritation.

Polyacrylamidomethylpropane Sulfonic acid	**(27119-07-9)**
LOAEL (oral, rat)	N/A mg/kg bodyweight
LOAEL (dermal, rat/rabbit)	N/A mg/kg bodyweight
LOAEL (inhalation, rat, gas)	N/A ppmv/4h
LOAEL (inhalation, rat, vapour)	N/A mg/l/4h
LOAEL (inhalation, rat, dust/mist/fume)	N/A mg/l/4h

Specific target organ toxicity (repeated exposure) : Not classified

Polyacrylamidomethylpropane Sulfonic acid	**(27119-07-9)**
LOAEL (oral, rat, 90 days)	N/A mg/kg bodyweight/day
LOAEL (dermal, rat/rabbit, 90 days)	N/A mg/kg bodyweight/day
LOAEL (inhalation, rat, gas, 90 days)	N/A ppmv/6h/day
LOAEL (inhalation, rat, vapour, 90 days)	N/A mg/l/6h/day
LOAEL (inhalation, rat,dust/mist/fume, 90 days)	N/A mg/l/6h/day

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Harmful if inhaled. Toxic if swallowed. Fatal in contact with skin.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

Hydrofluoric Acid, 47 - 51% (7664-39-3)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

12.3. Bioaccumulative potential

Hydrofluoric Acid, 47 - 51% (7664-39-3)	
Log Pow	-0.9 (Calculated)
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1790

UN-No. (IMDG) : 1790

UN-No. (IATA) : 1790

UN-No. (ADN) : Not applicable

UN-No. (RID) : 1790

14.2. UN proper shipping name

Proper Shipping Name (ADR) : HYDROFLUORIC ACID

Proper Shipping Name (IMDG) : Not applicable

Proper Shipping Name (IATA) : Not applicable

Proper Shipping Name (ADN) : Not applicable

Proper Shipping Name (RID) : Not applicable

Transport document description (ADR) : UN 1790 HYDROFLUORIC ACID, 8 (6.1), II, (E)

Transport document description (IMDG) : UN 1790 , 8

Transport document description (IATA) : UN 1790 , 8

Transport document description (RID) : UN 1790 , 8 (6.1)

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 8 (6.1)

Danger labels (ADR) : 8, 6.1

:

IMDG

Transport hazard class(es) (IMDG) : 8

IATA

Transport hazard class(es) (IATA) : 8

ADN

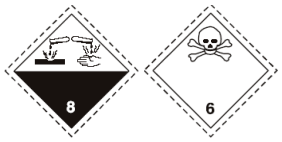
Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : 8 (6.1)

Danger labels (RID) : 8, 6.1

:



14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

Packing group (ADN) : Not applicable

Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : CT1

Limited quantities (ADR) : 1l

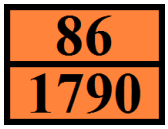
Excepted quantities (ADR) : E2

Vehicle for tank carriage : AT

Transport category (ADR) : 2

Hazard identification number (Kemler No.) : 86

Orange plates :



Tunnel restriction code (ADR) : E

EAC code : 2X

- Transport by sea

No data available

- Air transport

No data available

- Inland waterway transport

No data available

- Rail transport

No data available

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

VwVwS Annex reference	:	Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS, Annex 4)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	:	Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen	:	None of the components are listed
SZW-lijst van mutagene stoffen	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	:	None of the components are listed

Denmark

Recommendations Danish Regulation	:	Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Revision date : 01/20/2017

Full text of H- and EUH-statements:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Resp. Sens. 1	Sensitisation — Respiratory, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H300	Fatal if swallowed
H310	Fatal in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation
H330	Fatal if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product