Printing date 04/06/2015 Reviewed on 04/06/2015

1 Identification

· Product identifier

· Trade name: WATER SPOT REMOVER

· Article number: C-30

- · Application of the substance / the mixture Cleaning agent/ Cleaner
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

BAF Industries 8010 Dixie Highway Florence, KY 41042

USA

phone: 859-372-5900

· Information department: msds_info@prowax.com

2 Hazard(s) identification

· Classification of the substance or mixture



GHS06 Skull and crossbones

Acute Tox. 2 H300 Fatal if swallowed.

Acute Tox. 2 H310 Fatal in contact with skin.

Acute Tox. 2 H330 Fatal if inhaled.



GHS08 Health hazard

Carc. 1A H350 May cause cancer.



GHS05 Corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

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



T; Toxic

R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.



C; Corrosive

R35: Causes severe burns.

· Information concerning particular hazards for human and environment:

The product has to be labeled due to the calculation procedure of international guidelines.

· Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

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(Contd. of page 1)

Safety Data Sheet acc. to OSHA HCS

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Trade name: WATER SPOT REMOVER

· Hazard pictograms



C' 1 D

· Signal word Danger

· Hazard-determining components of labeling:

Benzenesulfonic acid, C10-16-alkyl derivs.

hydrogen fluoride (70%)

sulphuric acid

· Hazard statements

Fatal if swallowed, in contact with skin or if inhaled.

Causes severe skin burns and eye damage.

May cause cancer.

· Precautionary statements

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Do not breathe dusts or mists.

Wear respiratory protection.

Wear protective gloves / protective clothing.

Wear eye protection / face protection.

Do not get in eyes, on skin, or on clothing.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

If swallowed: Immediately call a poison center/doctor.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Specific treatment is urgent (see on this label).

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF exposed or concerned: Get medical advice/attention.

If swallowed: Rinse mouth. Do NOT induce vomiting.

Take off immediately all contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Classification system:
- · NFPA ratings (scale 0 4)



· HMIS-ratings (scale 0 - 4)



- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.

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· vPvB: Not applicable.

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3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

$\cdot D$	angerous o	components:	
6		Benzenesulfonic acid, C10-16-alkyl derivs.	2.5-10%
		<u>₹</u> C R35; X Xn R22	
		♦ Acute Tox. 3, H301; ♦ Skin Corr. 1A, H314; Eye Dam. 1, H318	
		sulphuric acid	2.5-10%
		<u>₹</u> C R35	
		Carc. 1A, H350; < Skin Corr. 1A, H314	
	7664-39-3	hydrogen fluoride (70%)	≤ 2.5%
		Q $T+ R26/27/28; C R35$	
		Acute Tox. 2, H300; Acute Tox. 1, H310; Acute Tox. 2, H330; 🔷 Skin Corr. 1A, H314	

4 First-aid measures

- · Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing:

Do not induce vomiting; immediately call for medical help.

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

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(Contd. of page 3)

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

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

- · Information about protection against explosions and fires: Keep respiratory protective device available.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters

7664-93-9 sulphuric acid

PEL Long-term value: 1 mg/m³ REL Long-term value: 1 mg/m³

TLV Long-term value: 0.2* mg/m³

*as thoracic fraction

7664-39-3 hydrogen fluoride (70%)

PEL Long-term value: 3 ppm

as F

REL Long-term value: 2.5 mg/m³, 3 ppm Ceiling limit value: 5* mg/m³, 6* ppm

*15-min, as F

TLV Long-term value: 0.41 mg/m³, 0.5 ppm

Ceiling limit value: 1.64 mg/m³, 2 ppm

as F; Skin; BEI

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· Ingredients with biological limit values:

7664-39-3 hydrogen fluoride (70%)

BEI 3 mg/g creatinine

Medium: urine

Time: prior to shift

Parameter: Flourides (background)

10 mg/g creatinine Medium: urine Time: end of shift

Parameter: Flourides (background)

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid Color: Light beige

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		(Contd. of page
· Odor:	Acrid	
· Odour threshold:	Not determined.	
· pH-value at 20 °C (68 °F):	< 1	
· Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	100 °C (212 °F)	
· Flash point:	301 °C (574 °F)	
· Flammability (solid, gaseous):	Not applicable.	
· Ignition temperature:	> 300 °C (> 572 °F)	
Decomposition temperature:	Not determined.	
· Auto igniting:	Product is not selfigniting.	
· Danger of explosion:	Product does not present an explosion hazard.	
· Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
· Vapor pressure at 20 °C (68 °F):	23 hPa (17 mm Hg)	
· Density at 20 °C (68 °F):	$1.0278 \ g/cm^3 (8.577 \ lbs/gal)$	
· Relative density	Not determined.	
· Vapour density	Not determined.	
· Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
Water:	Fully miscible.	
· Partition coefficient (n-octanol/wate	e r): Not determined.	
· Viscosity:		
Dynamic:	Not determined	
Kinematic:	Not determined.	
· Solvent content:		
Organic solvents:	0.0 %	
Water:	87.2 %	
Solids content:	5.8 %	
· Other information	No further relevant information available.	

10 Stability and reactivity

- · Reactivity
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: Strong caustic effect on skin and mucous membranes.

(Contd. on page 7)

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(Contd. of page 6)

- · on the eye: Strong caustic effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Toxic

Corrosive

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

7664-93-9 sulphuric acid

· NTP (National Toxicology Program)

7664-93-9 sulphuric acid

K

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- $\cdot \textit{Additional ecological information:}$
- · General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Danger to drinking water if even small quantities leak into the ground.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- · UN-Number
- · DOT, ADR, IMDG, IATA

UN2922

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Trade name: WATER SPOT REMOVER

	(Contd. of pag	
· UN proper shipping name		
· DOT · ADR	Corrosive liquids, toxic, n.o.s. (Hydrofluoric acid, Sulfuric aci	
· ADK	2922 Corrosive liquids, toxic, n.o.s. (Hydrofluoric acid, Sulfuacid)	
· IMDG, IATA	CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROFLUOR) ACID, SULPHURIC ACID)	
· Transport hazard class(es)		
\cdot DOT		
· Class · Label	8 Corrosive substances 8, 6.1	
\cdot ADR		
· Class	8 Corrosive substances	
· Label	8+6.1	
· IMDG		
· Class	8 Corrosive substances	
· Label	8/6.1	
\cdot IATA		
	9 Compains and account	
· Class · Label	8 Corrosive substances 8 (6.1)	
· Packing group	. /	
· Tucking group · DOT, ADR, IMDG, IATA	II	
· Environmental hazards:		
· Marine pollutant:	No	
· Special precautions for user	Warning: Corrosive substances	
· Danger code (Kemler):	86	
· EMS Number:	F-A,S-B	
· Segregation groups	Acids	
· Transport in bulk according to Annex 1 MARPOL73/78 and the IBC Code	II of Not applicable.	
· Transport/Additional information:		
\cdot DOT		
· Quantity limitations	On passenger aircraft/rail: 1 L	
	On cargo aircraft only: 30 L	

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Trade name: WATER SPOT REMOVER

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	(Contd. of page
$\cdot ADR$	
· Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· UN ''Model Regulation'':	UN2922, Corrosive liquids, toxic, n.o.s. (Hydrofluoric aci Sulfuric acid), 8 (6.1), II

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

7664-93-9 sulphuric acid

· Section 313 (Specific toxic chemical listings):

7664-93-9 sulphuric acid

- · TSCA (Toxic Substances Control Act) All ingredients are listed
- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

7664-93-9 sulphuric acid

A2

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms







GHS05

5 GHS06 GHS08

· Signal word Danger

· Hazard-determining components of labeling: Benzenesulfonic acid, C10-16-alkyl derivs.

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Trade name: WATER SPOT REMOVER

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hydrogen fluoride (70%)

sulphuric acid

· Hazard statements

Fatal if swallowed, in contact with skin or if inhaled.

Causes severe skin burns and eye damage.

May cause cancer.

· Precautionary statements

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Do not breathe dusts or mists.

Wear respiratory protection.

Wear protective gloves / protective clothing.

Wear eye protection / face protection.

Do not get in eyes, on skin, or on clothing.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

If swallowed: Immediately call a poison center/doctor.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Specific treatment is urgent (see on this label).

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF exposed or concerned: Get medical advice/attention.

If swallowed: Rinse mouth. Do NOT induce vomiting.

Take off immediately all contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Date of preparation / last revision 04/06/2015 / 4

· Abbreviations and acronyms:

ICAO: International Civil Aviation Organisation

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

Acute Tox. 2: Acute toxicity, Hazard Category 2

Acute Tox. 3: Acute toxicity, Hazard Category 3

Acute Tox. 3: Acute toxicity, Hazard Category 3

Acute Tox. 1: Acute toxicity, Hazard Category 1

Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Carc. 1A: Carcinogenicity, Hazard Category 1A

* * Data compared to the previous version altered.