Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

Mag Water Spot Remover Plus

Version number: GHS 1.0 Date of compilation: 2021-10-22

SECTION 1: Identification

1.1 Product identifier

Trade name **Mag Water Spot Remover Plus**

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

Relevant identified uses Vehicle water spot remover

Uses advised against Do not use for squirting or spraying. Do not use for products which come into direct contact with the skin. Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household).

1.3 Details of the supplier of the safety data sheet

Auto Chem Systems
92-1358 Hunekai St.
Kapolei, HI 96707

808-672-8958

1.4 Emergency telephone number

Emergency information service USA 1.800.535.5053, INTL 1.352.323.3500
24 hour emergency number

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.2	skin corrosion/irritation	1B	Skin Corr. 1B	H314
A.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
A.6	carcinogenicity	1A	Carc. 1A	H350
B.16	substance or mixture corrosive to metals	1	Met. Corr. 1	H290

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word danger
- Pictograms

GHS05, GHS08

- Hazard statements

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H350 May cause cancer.

- Precautionary statements

P202	Do not handle until all safety precautions have been read and understood.
P234	Keep only in original container.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	If swallowed: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
P310	Immediately call a poison center/doctor.
P321	Specific treatment (see on this label).
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- Hazardous ingredients for labelling — sulfuric acid ... %, ammonium bifluoride, phosphoric acid, 75%

2.3 Other hazards

Hazards not otherwise classified

Contains d-limonene. May produce an allergic reaction.
May be harmful if swallowed (GHS category 5: acutely toxic - oral).
May be harmful if inhaled (GHS category 5: acutely toxic - inhalation).
Very toxic to aquatic life with long lasting effects (GHS category 1: aquatic toxicity - acute and/or chronic).

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS
phosphoric acid, 75%	CAS No 7664-38-2	3 – < 12	Acute Tox. 4 / H302 Skin Corr. 1B / H314 Eye Dam. 1 / H318 Met. Corr. 1 / H290
sulfuric acid ... %	CAS No 7664-93-9	3 – < 12	Acute Tox. 3 / H331 Skin Corr. 1A / H314 Eye Dam. 1 / H318 Carc. 1A / H350
ammonium bifluoride	CAS No 1341-49-7	3 – < 12	Acute Tox. 3 / H301 Skin Corr. 1B / H314
d-limonene	CAS No 5989-27-5	0.1 – < 1	Skin Irrit. 2 / H315 Skin Sens. 1B / H317 Asp. Tox. 1 / H304 Flam. Liq. 3 / H226

Hazardous ingredients, Consideration of other advice

This table, if present, includes all GHS classified ingredients present above their cut-off limits, even if the finished product is not classified as hazardous by GHS.
Exact percentage of ingredients is withheld as a trade secret.

For full text of abbreviations: see SECTION 16.

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Follow water rinsing by massaging with calcium gluconate (2.5%) gel. Continue massaging with gel while seeking medical attention.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. Irrigate with calcium gluconate (1.0%) solution. Seek immediate medical attention.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. If patient is conscious and able to swallow give oral calcium solutions or calcium based antacids or milk. Seek immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Risk of hypocalcemia (possible life threatening lowering of serum calcium). May cause severe chemical burns which may not be immediately apparent.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, Alcohol resistant foam, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Substance or mixture corrosive to metals.

Hazardous combustion products

Nitrogen oxides (NOx), Phosphorus oxides (PxOy)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

- Handling of incompatible substances or mixtures

- Keep away from

Caustic solutions

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Corrosive conditions

Store in corrosive resistant container with a resistant inner liner.

Control of the effects

Protect against external exposure, such as

frost

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	phosphoric acid	7664-38-2	PEL (CA)		1		3				Cal/OSHA PEL
US	phosphoric acid	7664-38-2	REL		1 (10 h)		3				NIOSH REL
US	phosphoric acid	7664-38-2	TLV®		1		3				ACGIH® 2019
US	phosphoric acid	7664-38-2	PEL		1						29 CFR 1910.1000
US	sulfuric acid	7664-93-9	PEL (CA)		0.1		3				Cal/OSHA PEL
US	sulfuric acid	7664-93-9	REL		1 (10 h)						NIOSH REL
US	sulfuric acid	7664-93-9	PEL		1						29 CFR 1910.1000
US	sulfuric acid	7664-93-9	TLV®		0.2					t	ACGIH® 2019

Notation

Ceiling-C	ceiling value is a limit value above which exposure should not occur
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
t	thoracic fraction
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
phosphoric acid, 75%	7664-38-2	DNEL	2 mg/m³	human, inhalatory	worker (industry)	acute - local effects
phosphoric acid, 75%	7664-38-2	DNEL	1 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
sulfuric acid ... %	7664-93-9	DNEL	0.05 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
sulfuric acid ... %	7664-93-9	DNEL	0.1 mg/m³	human, inhalatory	worker (industry)	acute - local effects

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
ammonium bifluoride	1341-49-7	DNEL	2.3 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
ammonium bifluoride	1341-49-7	DNEL	3.8 mg/m³	human, inhalatory	worker (industry)	acute - local effects
d-limonene	5989-27-5	DNEL	67 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
d-limonene	5989-27-5	DNEL	9.5 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
sulfuric acid ... %	7664-93-9	PNEC	0.003 mg/l	aquatic organisms	freshwater	short-term (single instance)
sulfuric acid ... %	7664-93-9	PNEC	0 mg/l	aquatic organisms	marine water	short-term (single instance)
sulfuric acid ... %	7664-93-9	PNEC	8.8 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
sulfuric acid ... %	7664-93-9	PNEC	0.002 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
sulfuric acid ... %	7664-93-9	PNEC	0.002 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
ammonium bifluoride	1341-49-7	PNEC	76 mg/l	microorganisms	sewage treatment plant (STP)	short-term (single instance)
ammonium bifluoride	1341-49-7	PNEC	1.3 mg/l	aquatic organisms	freshwater	short-term (single instance)
ammonium bifluoride	1341-49-7	PNEC	76 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
ammonium bifluoride	1341-49-7	PNEC	22 mg/kg	terrestrial organisms	soil	short-term (single instance)
d-limonene	5989-27-5	PNEC	1.8 mg/l	microorganisms	sewage treatment plant (STP)	short-term (single instance)
d-limonene	5989-27-5	PNEC	1.3 mg/kg	benthic organisms	sediment	short-term (single instance)
d-limonene	5989-27-5	PNEC	0.13 mg/kg	pelagic organisms	sediment	short-term (single instance)
d-limonene	5989-27-5	PNEC	3.3 mg/kg	(top) predators	water	short-term (single instance)
d-limonene	5989-27-5	PNEC	14 µg/l	aquatic organisms	freshwater	short-term (single instance)
d-limonene	5989-27-5	PNEC	1.4 µg/l	aquatic organisms	marine water	short-term (single instance)
d-limonene	5989-27-5	PNEC	1.8 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
d-limonene	5989-27-5	PNEC	3.9 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)

Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
d-limonene	5989-27-5	PNEC	0.39 $^{mg}/_{kg}$	aquatic organisms	marine sediment	short-term (single instance)
d-limonene	5989-27-5	PNEC	0.76 $^{mg}/_{kg}$	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	colorless to pale yellow; transparent
Particle	not relevant (liquid)
Odor	sharp

Other safety parameters

pH (value)	2 – 3 (25 °C)
Melting point/freezing point	not determined
Initial boiling point and boiling range	100 °C
Flash point	not determined closed cup

Evaporation rate	Not determined
Flammability (solid, gas)	not relevant, (fluid)
Vapor pressure	32 hPa at 25 °C
Density	1.1 $^{g}/_{ml}$
Vapor density	this information is not available

Solubility(ies)

- Water solubility	miscible in any proportion

Partition coefficient

- n-octanol/water (log KOW)	this information is not available

Auto-ignition temperature	not determined
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". Substance or mixture corrosive to metals.

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

There is no additional information.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4: May be harmful if swallowed or if inhaled.

Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
phosphoric acid, 75%	7664-38-2	oral	1,530 $^{mg}/_{kg}$
sulfuric acid ... %	7664-93-9	inhalation: vapor	3 $^{mg}/_{l}$/4h
sulfuric acid ... %	7664-93-9	inhalation: dust/mist	0.85 $^{mg}/_{l}$/4h
ammonium bifluoride	1341-49-7	oral	130 $^{mg}/_{kg}$

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

Contains d-limonene. May produce an allergic reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

May cause cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Name of substance	CAS No	Classification	Number
d-limonene	5989-27-5	3	
sulfuric acid ... %	7664-93-9	1	

Legend

1 Carcinogenic to humans
3 Not classifiable as to carcinogenicity in humans

National Toxicology Program (United States): Report on Carcinogens

Name of substance	CAS No	Classification	Number
sulfuric acid ... %	7664-93-9	Known to be a human carcinogen	9th Report on Carcinogens

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
phosphoric acid, 75%	7664-38-2	EC50	>100 mg/l	aquatic invertebrates	48 h
phosphoric acid, 75%	7664-38-2	ErC50	>100 mg/l	algae	72 h
sulfuric acid ... %	7664-93-9	EC50	>100 mg/l	aquatic invertebrates	48 h
sulfuric acid ... %	7664-93-9	ErC50	>100 mg/l	algae	72 h
ammonium bifluoride	1341-49-7	LC50	421 mg/l	fish	96 h
d-limonene	5989-27-5	LC50	720 µg/l	fish	96 h
d-limonene	5989-27-5	EC50	688 µg/l	fish	96 h
d-limonene	5989-27-5	ErC50	0.32 mg/l	algae	72 h

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
d-limonene	5989-27-5	EC50	<0.67 mg/l	fish	8 d
d-limonene	5989-27-5	LC50	0.41 mg/l	fish	8 d

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Endocrine disrupting properties

None of the ingredients are listed.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number

DOT	UN 3264
IMDG-Code	UN 3264
ICAO-TI	UN 3264

14.2 UN proper shipping name

DOT	Corrosive liquid, acidic, inorganic, n.o.s.
IMDG-Code	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
ICAO-TI	Corrosive liquid, acidic, inorganic, n.o.s.
Technical name (hazardous ingredients)	sulfuric acid ... %, ammonium bifluoride

14.3 Transport hazard class(es)

DOT	8
IMDG-Code	8
ICAO-TI	8

14.4 Packing group

DOT	II
IMDG-Code	II
ICAO-TI	II

14.5 Environmental hazards

hazardous to the aquatic environment

Environmentally hazardous substance (aquatic environment): sulfuric acid ... %

14.6 Special precautions for user

There is no additional information.

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

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Particulars in the shipper's declaration	UN3264, Corrosive liquid, acidic, inorganic, n.o.s., (contains: sulfuric acid ... %, ammonium bifluoride), 8, II, environmentally hazardous
Reportable quantity (RQ)	3,005 lbs (1,364 kg) (ammonium bifluoride) (sulfuric acid ... %)
Danger label(s)	8, fish and tree

Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	B2, IB2, T11, TP2, TP27
ERG No	154

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant	yes (hazardous to the aquatic environment) (Sulphuric acid)
Danger label(s)	8, fish and tree

Special provisions (SP)	274
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-A, S-B
Stowage category	B
Segregation group	1 - Acids

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Environmental hazards	yes (hazardous to the aquatic environment)
Danger label(s)	8

Special provisions (SP)	A3
Excepted quantities (EQ)	E2
Limited quantities (LQ)	0,5 L

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA) all ingredients are listed

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

The List of Extremely Hazardous Substances and Their Threshold Planning Quantities				
Name of substance	**CAS No**	**Notes**	**Reportable quantity (pounds)**	**Threshold planning quantity (pounds)**
sulfuric acid ... %	7664-93-9		1,000	1000

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings			
Name of substance	**CAS No**	**Remarks**	**Effective date**
sulfuric acid ... %	7664-93-9	acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size	1986-12-31

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Name of substance	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
ammonium bifluoride	1341-49-7		1	100 (45,4)
phosphoric acid, 75%	7664-38-2		1	5000 (2270)
sulfuric acid ... %	7664-93-9		1	1000 (454)

Legend

1 "1" indicates that the statutory source is section 311(b)(2) of the Clean Water Act

Right to Know Hazardous Substance List

- Cleaning Product Right to Know Act Substance List (CA-RTK)

Name of substance	CAS No	Functionality	Authoritative Lists
water	7732-18-5	solvent	
phosphoric acid, 75%	7664-38-2	cleaning agent	OEHHA RELs
sulfuric acid ... %	7664-93-9	metal cleaner	IARC Carcinogens - 1 NTP 13th RoC - known OEHHA RELs Prop 65
ammonium bifluoride	1341-49-7	metal cleaner	
polyethoxylated tallow amine	61791-26-2	surfactant	
dipropylene glycol monomethyl ether	34590-94-8	surfactant	
Alcohols, C11-14-iso-, C13-rich, ethoxylated	78330-21-9	surfactant	
(Amines, N-tallowalkyltrimethylenediamines, ethoxylated	61790-85-0	surfactant	
d-limonene	5989-27-5		EU Fragrance Allergens
disodium cocoamphodipropionate	68604-71-7	surfactant	
methanol	67-56-1	alcohols	CA TACs NTP OHAT - Repr. or Dev. Toxicants OEHHA RELs Prop 65

- Toxic or Hazardous Substance List (MA-TURA)

Name of substance	CAS No	DEP CODE	PBT / HHS / LHS	PBT / HHS Threshold	De Minimis Concentration Threshold
ammonium bifluoride	1341-49-7				1.0 %
ammonium bifluoride	7664-41-7				1.0 %
phosphoric acid, 75%	7664-38-2				1.0 %
sulfuric acid ... %	7664-93-9				1.0 %

- Hazardous Substances List (MN-ERTK)

Name of substance	CAS No	References	Remarks
phosphoric acid, 75%	7664-38-2	A, O	
sulfuric acid ... %	7664-93-9	A, N, O	

Legend

A	American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH
N	National Institute for Occupational Safety and Health (NIOSH), "Recommendations for Occupational Safety and Health Standards," August 1988, available from NIOSH, Publications Dissemination Office, Division of Standards Development and Technology Transfer
O	Occupational Safety and Health Administration (OSHA), Safety and Health Standards, Code of Federal Regulations, title 29, part 1910, subpart Z, "Toxic and Hazardous Substances, 1990." General information: Minnesota Department of Labor and Industry, Occupational Safety and Health Division

- Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
ammonium bifluoride	1341-49-7		CO
d-limonene	138-86-3		F2
phosphoric acid, 75%	7664-38-2		CO
sulfuric acid ... %	7664-93-9		CA CO R2

Legend

CA	Carcinogenic
CO	Corrosive
F2	Flammable - Second Degree
R2	Reactive - Second Degree

- Hazardous Substance List (Chapter 323) (PA-RTK)

Name acc. to inventory	CAS No	Classification
AMMONIUM FLUORIDE ((NH4)(HF2))	1341-49-7	E
PHOSPHORIC ACID	7664-38-2	E
SULFURIC ACID	7664-93-9	E

Legend

E	Environmental hazard

- Hazardous Substance List (RI-RTK)

Name of substance	CAS No	References
phosphoric acid, 75%	7664-38-2	T, F
sulfuric acid ... %	7664-93-9	T, F

Legend

F	Flammability (NFPA®)
T	Toxicity (ACGIH®)

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Proposition 65 List of chemicals

Name of substance	Name acc. to inventory	CAS No	Wt%	Remarks	Type of the toxicity
methanol	methanol	67-56-1	0.027		developmental
ethylene oxide	ethylene oxide	75-21-8	0.0000049		cancer
ethylene oxide	ethylene oxide	75-21-8	0.0000049		female
ethylene oxide	ethylene oxide	75-21-8	0.0000049		developmental, male

VOC content

- Regulated Volatile Organic Compounds (VOC-EPA) 1.4 %
- Regulated Volatile Organic Compounds (VOC-Cal ARB) 1.4 %

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	3	major injury likely unless prompt action is taken and medical treatment is given
Flammability	0	material that will not burn under typical fire conditions
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	1	material that must be preheated before ignition can occur
Health	3	material that, under emergency conditions, can cause serious or permanent injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National inventories

Country	Inventory	Status
CA	DSL	all ingredients are listed
EU	REACH Reg.	not all ingredients are listed
US	TSCA	all ingredients are listed

Legend
DSL Domestic Substances List (DSL)
REACH Reg. REACH registered substances
TSCA Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH®	American Conference of Governmental Industrial Hygienists
ACGIH® 2019	From ACGIH®, 2019 TLVs® and BEIs® Book. Copyright 2019. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
Acute Tox.	Acute toxicity
Asp. Tox.	Aspiration hazard
ATE	Acute Toxicity Estimate
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
Cal ARB	California Air Resources Board
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DEP CODE	Department of Environmental Protection Code
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)

Abbr.	Descriptions of used abbreviations
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EmS	Emergency Schedule
EPA	Environmental Protection Agency. An agency of the federal government of the United States charged with protecting human health and the environment
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
ERG No	Emergency Response Guidebook - Number
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HHS	Higher hazard substance
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LHS	Lower hazard substance
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
Met. Corr.	Substance or mixture corrosive to metals
NFPA®	National Fire Protection Association (United States)
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitization
STEL	Short-term exposure limit
TLV®	Threshold Limit Values

Abbr.	Descriptions of used abbreviations
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H226	Flammable liquid and vapor.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H350	May cause cancer.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.