We create chemistry

Safety Data Sheet
Gardoprep 4552

1. Identification

Product identifier used on the label

Gardoprep 4552

Recommended use of the chemical and restriction on use

Recommended use*: Detergents
Unsuitable for use: Uses other than recommended

* The “Recommended use” identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family: inorganic, organic, aqueous solution

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Skin Corr./Irrit.	2	Skin corrosion/irritation
Eye Dam./Irrit.	1	Serious eye damage/eye irritation
Met. Corr.	1	Corrosive to metals

Label elements

Pictogram:



Signal Word:
Danger

Hazard Statement:

H318	Causes serious eye damage.
H315	Causes skin irritation.
H290	May be corrosive to metals.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P264	Wash contaminated body parts thoroughly after handling.
P234	Keep only in original packaging.

Precautionary Statements (Response):

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical attention.
P310	Immediately call a POISON CENTER or physician.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P390	Absorb spillage to prevent material damage.

Precautionary Statements (Storage):

P406	Store in corrosive resistant container with a resistant inner liner.

Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Hydrofluoric acid
CAS Number: 7664-39-3
Content (W/W): >= 0.1 - < 0.2%
Synonym: No data available.

Alcohols, C8-10, ethers with polyethylene-polypropylene glycol monobenzyl ether
CAS Number: 68154-99-4
Content (W/W): >= 1.0 - < 3.0%
Synonym: Alcohols, C8-10, ethers with polyethylene-polypropylene glycol monobenzyl ether

Orthophosphoric acid
CAS Number: 7664-38-2
Content (W/W): >= 1.0 - < 3.0%
Synonym: No data available.

Benzenesulfonic acid, dimethyl-, sodium salt

CAS Number: 1300-72-7
Content (W/W): >= 1.0 - < 3.0%
Synonym: No data available.

The product contains:

Hydrofluoric acid

4. First-Aid Measures

Description of first aid measures

General advice:
Immediately remove contaminated clothing. Remove affected person from danger area. Keep warm, calm and covered up. First aid personnel should pay attention to their own safety. Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. If breathing is irregular or stopped, administer artificial respiration.

If on skin:
Remove contaminated clothing immediately and clean before re-use or dispose it if necessary. Flush with copious amounts of water for at least 15 minutes. Immediate medical attention required. Apply calcium gluconate gel.

If in eyes:
Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required. Remove contact lenses, if present.

If swallowed:
Immediately rinse mouth and then drink milk or a magnesium hydroxide/calcium carbonate suspension, do not induce vomiting, seek medical attention. Summon medical aid without delay.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Information on: Hydrofluoric acid
Symptoms: Overexposure may cause:, corneal injury, skin corrosion, severe pain, coughing, respiratory disorders, dyspnea, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps
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Hazards: Symptoms of poisoning may only appear after several hours. May cause severe burns of the mouth and throat if orally ingested, as well as a danger of perforation of the oesophagus and the stomach.

Indication of any immediate medical attention and special treatment needed

Note to physician
Antidote: Administration of calcium gluconate.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
carbon dioxide, dry powder, water spray, alcohol-resistant foam

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
phosphorus oxides, carbon oxides, fluorinated compounds

Advice for fire-fighters

Protective equipment for fire-fighting:
Appropriate breathing apparatus may be required.

Further information:
Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

Environmental precautions

Do not allow to enter drains or waterways. Do not discharge into the subsoil/soil. If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.

Methods and material for containment and cleaning up

Ensure adequate ventilation. Pick up with inert absorbent material (e.g. sand, earth etc.). Take up mechanically and collect in suitable container (adequately labelled) for disposal.

7. Handling and Storage

Precautions for safe handling

Do not return residues to the storage containers. Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Keep away from food, drink and animal feeding stuffs. Avoid contact with skin and eyes. Warn users about safety measures and precautions to prevent accidents.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. The relevant fire protection measures should be noted.

Conditions for safe storage, including any incompatibilities
Segregate from bases.

Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE), Polyethylenetherephtalate (PET), Polypropylene (PP)

Further information on storage conditions: The entrance to storage rooms is to be granted only to appropriately trained personnel. Keep only in the original container. Keep in a cool, well-ventilated place. Avoid direct sunlight. avoid contact with metals Protect from frost. Keep away from heat.

Storage stability:
Storage temperature: 0 - 40 °C

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Hydrofluoric acid		
	ACGIH TLV	CLV 2 ppm (fluorine (F)); TWA value 0.5 ppm (fluorine (F)); Skin Designation (fluorine (F)); Danger of cutaneous absorption
Orthophosphoric acid	OSHA PEL	PEL 1 mg/m3 ; STEL value 3 mg/m3 ; TWA value 1 mg/m3 ;
	ACGIH TLV	TWA value 1 mg/m3 ; STEL value 3 mg/m3 ;

Advice on system design:
Use only in well-ventilated areas.

Personal protective equipment

Respiratory protection:
Wear respiratory protection if ventilation is inadequate.

Hand protection:
polyvinylchloride (Pylox), chloroprene rubber (Neoprene), Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc., Further information on penetration time is available from the manufacturer of the glove., The protection glove should be tested for its specific suitability (e.g. mechanical strength, product compatibility, anti-static properties)., The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

Body protection:
Chemical resistant protective clothing according to DIN EN 13034 (Type 6)

General safety and hygiene measures:
Eye wash fountains and safety showers must be easily accessible. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with the skin, eyes and clothing. Take off immediately all contaminated clothing. Keep away from food, drink and animal feeding stuffs. Hands and/or face should be washed before breaks and at the end of the shift.

9. Physical and Chemical Properties

Form:	liquid
Odour:	No data available.
Odour threshold:	No applicable information available.
Colour:	yellow
pH value:	3.0 (40 g/l)
Freezing point:	not determined
Melting point:	not determined
Boiling range:	not determined
Boiling point:	not determined
Sublimation point:	No applicable information available.
Flash point:	not applicable
Flammability:	not applicable
Lower explosion limit:	not determined
Upper explosion limit:	not applicable
Autoignition:	not determined
Vapour pressure:	(20 °C) not determined
Density:	1.130 g/cm3 (20 °C)
Relative density:	1.133
Vapour density:	No data available.
Partitioning coefficient n-octanol/water (log Pow):	No data available.
Thermal decomposition:	No applicable information available.
Viscosity, dynamic:	No applicable information available.
Viscosity, kinematic:	6.0 mm2/s (20 °C)
Solubility in water:	fully soluble
Miscibility with water:	miscible
Solubility (quantitative):	No applicable information available.
Solubility (qualitative):	No applicable information available.
Molar mass:	No applicable information available.

10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:
Corrosive effect on metals.

Oxidizing properties:
not fire-propagating

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
Reacts with metals, with evolution of hydrogen.

Conditions to avoid
Avoid direct sunlight.

Incompatible materials
bases

Hazardous decomposition products

Decomposition products:
Possible decomposition products: When exposed to high temperatures hazardous decomposition products such as carbon monoxide, carbon dioxide, smoke, oxides of nitrogen may be produced., No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:
No applicable information available.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Irritation / corrosion
Assessment of irritating effects: May cause severe damage to the eyes. May cause skin burns. Ingestion may cause corrosion of the gastrointestinal tract.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: No applicable information available.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
There are no test results available for this product. Do not allow to enter drains or waterways.
Based on available Data, the classification criteria are not met.

Persistence and degradability

Assessment biodegradation and elimination (H2O)
No data available concerning biodegradation and elimination.

Bioaccumulative potential

Bioaccumulation potential
No data available.

Mobility in soil

Assessment transport between environmental compartments

No data available.

13. Disposal considerations

Waste disposal of substance:
Observe national and local legal requirements.

14. Transport Information

Land transport
USDOT

Hazard class:	8
Packing group:	III
ID number:	UN 3264
Hazard label:	8
Proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (contains PHOSPHORIC ACID)

Sea transport
IMDG

Hazard class:	8
Packing group:	III
ID number:	UN 3264
Hazard label:	8
Marine pollutant:	NO
Proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (contains PHOSPHORIC ACID)

Air transport
IATA/ICAO

Hazard class:	8
Packing group:	III
ID number:	UN 3264
Hazard label:	8
Proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (contains PHOSPHORIC ACID)

15. Regulatory Information

Federal Regulations

Registration status:
Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

CERCLA RQ	CAS Number	Chemical name
100 LBS	12125-01-8; 7664-39-3	ammonium fluoride; Hydrofluoric acid

State regulations

State RTK	CAS Number	Chemical name
NJ	7664-38-2	Orthophosphoric acid
	12125-01-8	ammonium fluoride
	7664-39-3	Hydrofluoric acid
PA	7664-38-2	Orthophosphoric acid
	12125-01-8	ammonium fluoride
	7664-39-3	Hydrofluoric acid

NFPA Hazard codes:
Health: 3 Fire: 1 Reactivity: 1 Special:

HMIS III rating
Health: 3 Flammability: 1 Physical hazard: 1

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2020/06/15

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