SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

Gardobond A 2217 (54 GLA)

Version	Revision Date:	SDS Number:	Date of last issue: 16.02.2023
1.1	02.03.2025	000000000050740797	Date of first issue: 16.02.2023

SECTION 1. IDENTIFICATION

Product name : Gardobond A 2217 (54 GLA)
Product code : 000000000050740797

Manufacturer or supplier's details

Company:
Chemetall U.S., Inc.
675 Central Avenue
New Providence, NJ 07974 – USA
+1 800 526-4473
sds.na-chemetall@basf.com

Emergency telephone : CHEMTREC: 800-424-9300, +1-703-527-3887

Recommended use of the chemical and restrictions on use

Recommended use : Surface treatment
Restrictions on use : Uses other than recommended

2. Hazards Identification

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

Classification of the product

Acute Tox.	4 (oral)	Acute toxicity
Acute Tox.	3 (dermal)	Acute toxicity
Skin Corr./Irrit.	2	Skin corrosion/irritation
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Skin Sens.	1	Skin sensitization
Carc.	2	Carcinogenicity
STOT RE	2	Specific target organ toxicity — repeated exposure
Aquatic Acute	3	Hazardous to the aquatic environment - acute
Met. Corr.	1	Corrosive to metals

Label elements

Pictogram:

Signal Word:
Danger

Hazard Statement:

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.
H402	Harmful to aquatic life.
H373	May cause damage to organs (Blood) through prolonged or repeated exposure.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P234	Keep only in original packaging.
P264	Wash contaminated body parts thoroughly after handling.
P260	Do not breathe mist or vapour or spray.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.
P308 + P313	IF exposed or concerned: Get medical attention.
P337 + P313	If eye irritation persists: Get medical attention.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth
P362 + P364	Take off contaminated clothing and wash it before reuse.
P390	Absorb spillage to prevent material damage.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.

Precautionary Statements (Storage):

P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

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

Sodium nitrate
CAS Number: 7631-99-4
Content (W/W): >= 5.0 - < 7.0%
Synonym: Natriumnitrat

Hydroxylammonium sulphate
CAS Number: 10039-54-0
Content (W/W): >= 1.0 - < 3.0%
Synonym: Bis(hydroxylammonium) sulfate

Benzenesulfonic acid, dimethyl-, sodium salt
CAS Number: 1300-72-7
Content (W/W): >= 1.0 - < 3.0%
Synonym: No data available.

Hydrofluoric acid
CAS Number: 7664-39-3
Content (W/W): >= 0.3 - < 1.0%
Synonym: No data available.

3-nitrobenzenesulphonate, Na-Salt
CAS Number: 127-68-4
Content (W/W): >= 0.2 - < 0.3%
Synonym: 3-Nitrobenzenesulfonic acid sodium salt; Ludigol

4. First-Aid Measures

Description of first aid measures

General advice:
Keep warm, calm and covered up. Never give anything by mouth to an unconscious person. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product. Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

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

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

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: Sodium nitrate
Symptoms: Overexposure may cause:, vomiting, methaemoglobinaemia, weakness, abdominal cramps, diarrhea, headache

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

Information on: Benzenesulfonic acid, dimethyl-, sodium salt
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.
Treatment:	Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Extinguishing media

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

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
fluorinated compounds, nitrogen oxides
Hazardous decomposition products formed under fire conditions.

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

Avoid breathing vapours. For non-emergency personnel: Use personal protective clothing. Ensure adequate ventilation. Keep away from sources of ignition. For emergency responders: Advice on product handling can be found in sections 7 and 8 of this safety data sheet. Information regarding personal protective measures, see section 8.

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

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container for diposal according with the waste regulations (see section 13). Clean preferably with a detergent; avoid the use of solvents. Ensure adequate ventilation.

7. Handling and Storage

Precautions for safe handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

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 ammonium salts. Segregate from organic substances. Keep away from amines, oxidizing agents, from strongly alkaline and strongly acid materials. Segregate from combustible materials. Segregate from reducing agents.

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

Suitable materials for containers: rubberized

Further information on storage conditions: Keep container dry. Keep away from heat. Keep in a cool, well-ventilated place. Avoid direct sunlight. Store only in corrosion proof containers. Close containers carefully once opened and store them upright in order to prevent any leakage. No smoking. No admission for unauthorised personnel. Always keep in containers of same material as the original one. Observe label precautions. avoid contact with metals Store protected against freezing.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Hydrofluoric acid	ACGIH, US:	CLV 2 ppm (fluorine (F));
	ACGIH, US:	TWA value 0.5 ppm (fluorine (F));
	OSHA Z2:	TWA value 3 ppm ;
	ACGIH, US:	Skin Designation (fluorine (F)); Danger of cutaneous absorption
Orthophosphoric acid	ACGIH, US:	TWA value 1 mg/m3 ;
	ACGIH, US:	STEL value 3 mg/m3 ;
	OSHA Z1:	PEL 1 mg/m3 ;

Personal protective equipment

Respiratory protection:
Respiratory protection required if exposure limit (if available) may be exceeded

Hand protection:
Chemical resistant protective gloves (EN ISO 374-1), chloroprene rubber (CR) - 0.5 mm coating thickness, butyl rubber gloves - material thickness: 0.5 mm, natural rubber/natural latex (NR) - 0.5 mm coating thickness, polyvinylchloride (PVC) - 0.7 mm coating thickness, Performance level 6, corresponding to a breakthrough time of >480 min according to EN ISO 374-1, 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:
Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. This can be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations at the workplace below the occupational exposure limits, appropriate certified respirators must be worn. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form:	liquid
Odour:	No data available.
Odour threshold:	No applicable information available.
pH value:	< 2.5
Freezing point:	not determined
Melting point:	< -1 °C
onset of boiling:	not determined
Boiling range:	not determined
Sublimation point:	No applicable information available.
Flammability:	not applicable
Lower explosion limit:	not determined
Upper explosion limit:	No applicable information available.
Autoignition:	
Vapour pressure:	(20 °C) not determined
Density:	1.128 g/cm3 (20 °C)
Relative density:	No applicable information available.
Vapour density:	Lighter than air.
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
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.
Evaporation rate:	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 heat. Avoid direct sunlight. Avoid freezing. avoid contact with metals

Incompatible materials
metal, glass, flammable, oxidizable substances, organic substances, ammonium salts, Keep away from highly acidic or alkaline substances, amines and oxidants in order to prevent exothermal reactions., reducing agents

Hazardous decomposition products

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 decomposition if stored and handled as prescribed/indicated.

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

Acute toxicity
Assessment of acute toxicity: Of moderate toxicity after single ingestion. Of pronounced toxicity after short-term skin contact.

Oral
Type of value: ATE
Value: 735 mg/kg
The product has not been tested. The statement has been derived from the properties of the individual components.

Inhalation
Type of value: ATE
Value: 76 mg/l
The product has not been tested. The statement has been derived from the properties of the individual components.

Dermal
Type of value: ATE
Value: 747 mg/kg
The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment other acute effects
Assessment of STOT single:
Based on available data, the classification criteria are not met.

Irritation / corrosion
Assessment of irritating effects: Eye contact causes irritation. Skin contact causes irritation.

Information on: Hydroxylammonium sulphate
Assessment of irritating effects: Skin contact causes irritation. Eye contact causes irritation. EU-classification

Information on: Hydrofluoric acid
Assessment of irritating effects: Highly corrosive! Damages skin and eyes.

Sensitization
Assessment of sensitization: Sensitization after skin contact possible.

Information on: 3-nitrobenzenesulphonate, Na-Salt
Assessment of sensitization:
sensitizing effect in animal tests

Information on: Hydroxylammonium sulphate
Assessment of sensitization:
Sensitization after skin contact possible.

Aspiration Hazard
No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: Repeated exposure may affect certain organs.

Information on: Hydroxylammonium sulphate
Assessment of repeated dose toxicity: The substance may cause damage to the hematological system even after repeated ingestion of low doses, as shown in animal studies.

Genetic toxicity
Assessment of mutagenicity: Based on available data, the classification criteria are not met.

Information on: Hydroxylammonium sulphate
Assessment of mutagenicity: The data available on mutagenic action are not consistent. The substance was mutagenic in various cell culture test systems; however, these results could not be confirmed in tests with mammals. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Carcinogenicity
Assessment of carcinogenicity: Indication of possible carcinogenic effect in animal tests.

Information on: Sodium nitrate
Assessment of carcinogenicity: In long-term studies in rats in which the substance was given by feed, a carcinogenic effect was not observed. Under certain conditions the substance can form nitrosamines. Nitrosamines are carcinogenic in animal studies.

Information on: Hydroxylammonium sulphate
Assessment of carcinogenicity: Indication of possible carcinogenic effect in animal tests.

Reproductive toxicity
Assessment of reproduction toxicity: Based on available data, the classification criteria are not met.

Teratogenicity
Assessment of teratogenicity: Based on available data, the classification criteria are not met.

Other Information
Inhalation of nitrous gas (e.g. after fires) can cause lung oedema. Nausea, unconsciousness, haematurie (blood in the urine), shortness of breath or circulatory collapse are possible.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
Harmful to aquatic life. There are no test results available for this product. Do not allow to enter drains or waterways.

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:
Do not discharge into drains/surface waters/groundwater. Observe national and local legal requirements.

Container disposal:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Land transport
USDOT

Hazard class:	8
Packing group:	III
ID number:	UN 2922

Hazard label:	8, 6.1
Proper shipping name:	CORROSIVE LIQUID, TOXIC, N.O.S. (contains HYDROXYLAMMONIUM SULPHATE, HYDROFLUORIC ACID)

Sea transport
IMDG

Hazard class:	8
Packing group:	III
ID number:	UN 2922
Hazard label:	8, 6.1
Marine pollutant:	NO
Proper shipping name:	CORROSIVE LIQUID, TOXIC, N.O.S. (contains HYDROXYLAMMONIUM SULPHATE, HYDROFLUORIC ACID)

Air transport
IATA/ICAO

Hazard class:	8
Packing group:	III
ID number:	UN 2922
Hazard label:	8, 6.1
Proper shipping name:	CORROSIVE LIQUID, TOXIC, N.O.S. (contains HYDROXYLAMMONIUM SULPHATE, HYDROFLUORIC 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.

EPCRA 313:

CAS Number	Chemical name
7631-99-4	Sodium nitrate

CERCLA RQ	CAS Number	Chemical name
100 LBS	7664-39-3	Hydrofluoric acid

State regulations

State RTK	CAS Number	Chemical name
NJ	10039-54-0	Hydroxylammonium sulphate
PA	7631-99-4	Sodium nitrate

NFPA Hazard codes:
Health: 2 Fire: 1 Reactivity: 1 Special:

HMIS III rating
Health: 2¤ Flammability: 1 Physical hazard: 1

16. Other Information

SDS Prepared by:
Chemetall (now part of BASF Group) NA Product Regulations
SDS Prepared on: 02.03.2025

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.