

Safety Data Sheet

GardoClean S 5249

Revision date : 2023/09/26
Version: 4.0

Page: 1/11
(30690221/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

GardoClean S 5249

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:

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

Emergency telephone number

24 Hour Emergency Response Information

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

Other means of identification

Chemical family: organic compounds, inorganic base, Water

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

Label elements

Safety Data Sheet

GardoClean S 5249

Revision date: 2023/09/26
Version: 4.0

Page: 2/11
(30690221/SDS_GEN_US/EN)

Pictogram:



Signal Word:
Danger

Hazard Statement:

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P260	Do not breathe mist or vapour or spray.
P264	Wash contaminated body parts thoroughly after handling.
P234	Keep only in original packaging.
P270	Do not eat, drink or smoke when using this product.

Precautionary Statements (Response):

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or 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.
P390	Absorb spillage to prevent material damage.
P330	Rinse mouth.
P310	Immediately call a POISON CENTER or physician.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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

Potassium hydroxide

Safety Data Sheet

GardoClean S 5249

Revision date: 2023/09/26
Version: 4.0

Page: 3/11
(30690221/SDS_GEN_US/EN)

CAS Number: 1310-58-3
Content (W/W): ≥ 15.0 - $< 20.0\%$
Synonym: Potassium hydroxide

Sodium Hydroxide
CAS Number: 1310-73-2
Content (W/W): ≥ 7.0 - $< 10.0\%$
Synonym: Sodium hydroxide; Caustic soda

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.

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. Do not induce vomiting due to aspiration hazard. Rinse mouth immediately with water. Keep at rest.

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: Potassium hydroxide

Symptoms: Overexposure may cause: vomiting, dyspnea, collapse, diarrhea, coughing, severe pain

Information on: Sodium Hydroxide

Symptoms: Overexposure may cause: vomiting, circulatory collapse, death, stenosis, dyspnea, salivation, severe pain

Hazards: 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

Safety Data Sheet

GardoClean S 5249

Revision date: 2023/09/26

Version: 4.0

Page: 4/11

(30690221/SDS_GEN_US/EN)

Note to physician

Antidote:

No known specific antidote.

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:

carbon oxides

Fire will produce dense black smoke. Inhalation of dangerous decomposition products may cause serious damage to health.

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 disposal according with the waste regulations (see section 13). Clean preferably with a detergent; avoid the use of solvents. Ensure adequate ventilation.

Safety Data Sheet

GardoClean S 5249

Revision date: 2023/09/26
Version: 4.0

Page: 5/11
(30690221/SDS_GEN_US/EN)

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

Keep away from oxidising agents, from strongly alkaline and strongly acid materials. Segregate from acids and acid forming substances.

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

Further information on storage conditions: Keep container dry. 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

Storage stability:

Storage temperature: -5 - 40 °C

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Potassium hydroxide	ACGIH, US:	CLV 2 mg/m3 ;
---------------------	------------	---------------

Sodium Hydroxide	ACGIH, US:	CLV 2 mg/m3 ;
	OSHA Z1:	PEL 2 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), butyl rubber gloves - material thickness: 0.5 mm, nitrile rubber (NBR) - 0.4 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).

Safety Data Sheet

GardoClean S 5249

Revision date: 2023/09/26

Version: 4.0

Page: 6/11

(30690221/SDS_GEN_US/EN)

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:	odourless
Odour threshold:	No applicable information available.
Colour:	light yellow
pH value:	13.0 - 14.0 (20 °C) (undiluted)
Melting point:	-1 °C
Freezing point:	No applicable information available.
Boiling range:	not determined
onset of boiling:	not determined
Sublimation point:	No applicable information available.
Flash point:	not applicable The product has not been tested. The statement has been derived from the properties of the individual components.
Flammability:	not applicable
Lower explosion limit:	not determined
Upper explosion limit:	not applicable
Autoignition:	No applicable information available.
Vapour pressure:	(20 °C) not determined
Density:	1.414 g/cm ³ (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.
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.

Safety Data Sheet

GardoClean S 5249

Revision date: 2023/09/26
Version: 4.0

Page: 7/11
(30690221/SDS_GEN_US/EN)

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

May react with aluminum, zinc or tin, with formation of hydrogen. In reaction with acids exothermic reaction.

Conditions to avoid

Avoid direct sunlight. avoid contact with metals

Incompatible materials

metal, acid forming substances, Keep away from highly acidic or alkaline substances as well as oxidants in order to prevent exothermal reactions., acids

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.

Oral

Type of value: ATE

Value: 1,762 mg/kg

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Potassium hydroxide

Safety Data Sheet

GardoClean S 5249

Revision date: 2023/09/26
Version: 4.0

Page: 8/11
(30690221/SDS_GEN_US/EN)

Type of value: LD50
Species: rat (male)
Value: 333 mg/kg (OECD Guideline 425)
Literature data.

Inhalation

Type of value: ATE

Value: > 20 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: > 2,000 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: Corrosive! Damages skin and eyes. May cause severe damage to the eyes.

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.

Information on: Potassium hydroxide

Assessment of irritating effects: Highly corrosive! Damages skin and eyes.

Information on: Sodium Hydroxide

Assessment of irritating effects: Highly corrosive! Damages skin and eyes.

Sensitization

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

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

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

Genetic toxicity

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

Carcinogenicity

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

Reproductive toxicity

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

Safety Data Sheet

GardoClean S 5249

Revision date: 2023/09/26
Version: 4.0

Page: 9/11
(30690221/SDS_GEN_US/EN)

Teratogenicity

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

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:

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: II

ID number: UN 3266

Hazard label: 8

Proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (contains SODIUM HYDROXIDE, POTASSIUM HYDROXIDE)

Sea transport

IMDG

Hazard class: 8

Packing group: II

ID number: UN 3266

Safety Data Sheet

GardoClean S 5249

Revision date: 2023/09/26

Version: 4.0

Page: 10/11

(30690221/SDS_GEN_US/EN)

Hazard label: 8
Marine pollutant: NO
Proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (contains SODIUM HYDROXIDE, POTASSIUM HYDROXIDE)

Air transport

IATA/ICAO
Hazard class: 8
Packing group: II
ID number: UN 3266
Hazard label: 8
Proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (contains SODIUM HYDROXIDE, POTASSIUM HYDROXIDE)

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

1000 LBS

CAS Number

1310-58-3; 1310-73-2

Chemical name

Potassium hydroxide; Sodium Hydroxide

State regulations

State RTK

NJ

CAS Number

1310-58-3

Chemical name

Potassium hydroxide

1310-73-2

Sodium Hydroxide

PA

1310-58-3

Potassium hydroxide

1310-73-2

Sodium Hydroxide

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:

Chemetall (now part of BASF Group) NA Product Regulations

SDS Prepared on: 2023/09/26

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

Safety Data Sheet

GardoClean S 5249

Revision date: 2023/09/26

Version: 4.0

Page: 11/11

(30690221/SDS_GEN_US/EN)

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.

IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE , IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.

END OF DATA SHEET