

Gardostrip 5628A, Gardostrip Activator

Product Description

Gardostrip 5628A is a paint stripping system to remove polyester powder paint from aluminium, zinc and steel surfaces. It is free from chlorinated hydrocarbons, phenols and cresols. Gardostrip 5628A may also remove other paints, but is specifically designed for polyester. The action of Gardostrip 5628A on polyester is to completely dissolve the resin, releasing the pigments into the solution for removal. Other paints will be lifted from the surface but not dissolved.

Features and Benefits

- Operates from ambient to 60°C
- Fast stripping times
- Methylene chloride free
- Safe on all metals
- Long solution life
- Low operating costs

Components

Gardostrip 5628A
Gardostrip Activator

Directions for Use

The paint stripper is used by immersion. Operating temperature is ambient to 60 deg.C (maximum). Agitation (by stirrer or circulation pump) is desirable to ensure uniformity but not essential.

Heating should be available to maintain performance as the solution becomes contaminated.

Paint residues may be removed by filter press or filter bags. Efficient filtration is considered essential for the product to perform cost-effectively.

Water must be excluded from the stripper tank. Work must enter dry.

Gardostrip 5628A is used to maintain the bath volume and Gardostrip Activator is added initially, and as required, to maintain chemical attack on polyester powdercoat. Gardostrip Activator is consumed during the stripping process, and additions are calculated according to a simple test procedure.

The solution remains non-etching towards aluminium as long as water content is minimised. Gardostrip Activator is a water-free alkali additive which does not cause water build-up in the solution. The alternative to Gardostrip Activator, Gardostrip 5628LA-1, is a water-containing alkali concentrate which may only be used under specific circumstances.

Application of the Paint Stripper:-

Bath Make Up:

Per 1000 litres of bath volume
1000 litres of Gardostrip 5628A
50 kg (35 litres) of Gardostrip Activator.

Gardostrip Activator is a corrosive liquid. Take care when adding to the tank.

Bath Operation:

Immersion time: 5-60 minutes. Time may be longer depending on the temperature and age of the bath.

Bath Temperature: 20-60°C (normally 40°C)

Operation at temperatures above 60 deg.C. will result in an unacceptable level of fumes, odours, and solution loss through evaporation.

Bath Control:

Alkalinity Titration or Titration Points: To be performed at every shift.

1. Take a 5 ml sample of the bath
2. Add 25 ml water and a few drops of phenolphthaleine indicator
The solution will turn pink.
3. Titrate with 0.1N acid until the pink colour disappears.

Mls = titration pointage.

A new solution will have a Pointage of 7-8

Pointage should be maintained at 7 - 15.

Add 2.5 litres (3.5kg) of Gardostrip Activator per 1000 litres to raise the pointage by 1.0

Material Handling

Equipment should be constructed of general purpose constructional steels
The bath may be agitated by means of a recirculating pump or propeller stirrer

Or the work can be moved in the solution using a rotating barrell, rocking cam, air ram or similar arrangement.

The circulating solution is abrasive, and can damage mechanical pump seals in time
Seal-less pumps, such as magnetic drive, or "vertical" pumps (with submerged impeller and body) are preferred. Mechanical seals which have a carbon face should not be used. Ceramic is preferred.

Consult Chemetall for equipment suitable for your process.

A filter (filter press or bag filter) is desirable to remove paint residues in order to minimise wastage of the product in the form of wet sludge. Filter cake in the order of 30-50% w/w solids should be achievable. Alternatively, the bath can be allowed to settle periodically, and the settled sludge transferred to filter bags to drain.

Repainting

Care must be taken to ensure that metal stripped in Gardostrip is properly prepared before repainting.

Aluminium:- The stripping process for aluminium should include cleaning and etching in a caustic soda solution to remove all paint residues and the remains of any previous chromate conversion coating. After rinsing, the aluminium must be reprocessed as for new aluminium.

Zinc (galvanised) :- Clean the stripped surface carefully by (for instance) water blasting. Ensure that the zinc coating is undamaged and not excessively darkened or powdery. Reprocess as for new zinc coated steel.

Steel:- Clean the stripped surface carefully by (for instance) water blasting. Protect from rusting by drying immediately and/or apply a suitable protective coating. Then clean and reprocess as for new steel.

The performance of any subsequently applied paint coating on a surface stripped with Gardostrip should be verified in all cases.

Packaging

Available in 25kg containers.

Safety, Transport and Storage Information

Please refer to the Safety Data Sheet.

Disclosure log

Issue Date: July 2018

The above data have been compiled to the best of our knowledge on the basis of thorough tests and with regard to the current state of our long practical experience. No liabilities or guarantee deriving from or in connection with this leaflet can be imputed to us. – Reproduction, in whole or in part, only with our express permission.

Gardacid P4449

Cleaner and stripper for Aluminium

Description

Gardacid P4449 is a borate-free, liquid cleaner and stripper for Aluminium.
Gardacid P4449 is primarily formulated for pickling Aluminium surfaces.

The special composition of **Gardacid P4449** facilitates the removal of fluoride in the wastewater, obtaining values below 10 ppm in the treated wastewater depending on the conditions of the treatment.

The **Gardacid P4449** is applied by spray and cascade.

Applications

SPRAY

Bath temperature:	Ambient – 45 °C
Treatment time:	20 sec – 5 minutes
Bath make-up:	10 – 15 g/l (8.8 – 16.2 ml/l) of Gardacid P4449
Free Acid:	9 – 14 pointage

Bath temperature and concentration should be controlled in plant to maintain the desired minimum etch rate, usually 1 – 2 g/m².

Product Characteristics

Appearance:	Clear, yellow liquid
Stability:	0 - 45°C
pH (neat)	Approx 3.2
Specific Gravity:	Approx 1.14 g/ml

These are typical values only and do not constitute a specification.

Bath Analysis

Free Acid (FA)

1. Take 10ml of solution and add 3-4 drops of Bromocresol Green indicator.
2. Titrate with 0.1N NaOH (Sodium Hydroxide) until yellow colour changes to blue.

No. of mls = 1.0 Free Acid Pointage

Bath replenishment FA:

For each free acid pointage consumed add 1.1 g/l of **Gardacid P4449**

Total acid (TA):

1. Take 10ml of solution and add 3-4 drops of Phenolphthalein indicator.
2. Titrate with 0.1N NaOH (Sodium Hydroxide) from colourless to pink.

No. of mls = 1.0 Total Acid Pointage

For proper maintenance of the product pickling properties and to minimize sludge maintain $TA / FA < 4.5$

Bath maintained between 9 and 20 FA points, allowed an attack of 2 g/m² in 2 minutes about 40° C.

Aluminium concentration = approx $(TA-FA) \times 0.15$ g/litre

Equipment materials

Bath tank, spray tunnel, heating elements, pump mains, spray tubes and spray nozzles:-

Chromium nickel molybdenum steel (316) may be used with limitations.

Acid-proof plastics such as polypropylene and PVC are preferred.

Packaging

Available in 1000 litre containers.

Safety, Transport and Storage Information

Please refer to the Safety Data Sheet.

Issue Date: July 2018

The above data have been compiled to the best of our knowledge on the basis of thorough tests and with regard to the current state of our long practical experience. No liabilities or guarantee deriving from or in connection with this leaflet can be imputed to us. – Reproduction, in whole or in part, only with our express permission.

Safety data sheet

Page: 1/10

Chemetall (now part of BASF Group) Safety data sheet
Date / Revised: 12.12.2018
Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

1. Substance/preparation and manufacturer/supplier identification

241752000 GARDOBOND X4707E-12 (BULK)

Manufacturer/supplier:

Chemetall (Australasia) Pty Ltd
ABN 25 074 869 015
Head Office: 17 Turbo Drive, Bayswater North, Vic 3153, Australia
Freecall: 1800 008 738
Telephone: +61 3 9729 6253
Telefax number: +61 3 9720 1711
E-mail address: customer.service.au@basf.com

Emergency information:

Telephone: 1800 033 111

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 4
Acute toxicity (Dermal) : Category 4
Skin corrosion/irritation : Category 2
Serious eye damage/eye irritation : Category 1


GHS label elements

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 12.12.2018
 Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

Hazard pictograms : 

Signal word : Danger

Hazard statements : H302 + H312 Harmful if swallowed or in contact with skin
 H314 Causes severe skin burns and eye damage.

Precautionary statements : **Prevention:**
 P262 Do not get in eyes, on skin, or on clothing.
 P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
 P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 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 or doctor/ physician.
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.
 P362 Take off contaminated clothing and wash before reuse.
Disposal:
 P501 Dispose of contents/ container to an approved waste disposal plant.

In use hazards

An in-use solution of less than 15% is not classified as hazardous according to GHS criteria.
 An in-use solution of 15 - 50% has the signal word WARNING according to GHS criteria.

Other hazards which do not result in classification

The information required is contained in this Material Safety Data Sheet.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Ammonium hydrogendifluoride	1341-49-7	< 10
Hexafluorotitanic acid	17439-11-1	< 10

SECTION 4. FIRST AID MEASURES

General advice : First Aid responders should pay attention to self-protection and

	use the recommended protective clothing Move out of dangerous area. Take off contaminated clothing and shoes immediately.
Inhalation	: Move to fresh air. If symptoms persist, call a physician.
Skin contact	: Wash off immediately with plenty of water for at least 15 minutes. Call a physician immediately. First treatment with calcium gluconate paste.
Eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
Ingestion	: Rinse mouth with water. Immediately drink calcium solution (calcium tablets dissolved in water). Do NOT induce vomiting. Call a physician immediately.
Most important symptoms and effects, both acute and delayed	: Causes severe skin burns and eye damage. Watch victim for several hours because of possible delayed signs of poisoning. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.
Notes to physician	: First treatment with calcium gluconate paste. Immediately drink calcium solution (calcium tablets dissolved in water). For specialist advice physicians should contact the Poisons Information Service.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Carbon dioxide (CO ₂) Dry powder Water spray jet Alcohol-resistant foam
Unsuitable extinguishing media	: High volume water jet
Specific hazards during firefighting	: Heating or fire can release toxic gas.
Specific extinguishing methods	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Use water spray to cool unopened containers.

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 12.12.2018
 Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Wear personal protective equipment.
 Evacuate personnel to safe areas.
 For further information see Section 8 of the safety data sheet.
 For disposal considerations see section 13.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.
 Avoid subsoil penetration.
- Methods and materials for containment and cleaning up : Ensure adequate ventilation.
 Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
 Sweep up and shovel into suitable containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection. The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.
 Avoid contact with skin and eyes.
 Ensure that eye flushing systems and safety showers are located close to the working place.
 Do not breathe vapours, aerosols.
 To avoid risks to man and the environment, comply with the instructions for use.
- Hygiene measures : Take off contaminated clothing and shoes immediately.
 Avoid contact with the skin and the eyes.
 Keep away from food, drink and animal feedingstuffs.
 Wash hands before breaks and immediately after handling the product.
- Conditions for safe storage : Store in a place accessible by authorized persons only.
 Store in original container.
 Keep container tightly closed in a dry and well-ventilated place.
 To maintain product quality, do not store in heat or direct sunlight.
- Materials to avoid : Incompatible with bases.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 12.12.2018
 Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ammonium hydrogendifluoride	1341-49-7	TWA	2.5 mg/m ³ (Fluorine)	AU OEL
		TWA	2.5 mg/m ³ (Fluorine)	ACGIH

Engineering measures : Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Respiratory protection : In case of inadequate ventilation wear respiratory protection.
Respirator with a vapour filter (EN 141)

Filter type : Inorganic gas/vapour type

Hand protection

Material : Fluorinated rubber
 Break through time : 480 min
 Glove thickness : 0.4 mm

Material : Nitrile rubber
 Break through time : 480 min
 Glove thickness : 0.35 mm

Material : butyl-rubber
 Break through time : 480 min
 Glove thickness : 0.5 mm

Material : Natural Rubber
 Break through time : 480 min
 Glove thickness : 0.5 mm

Material : PVC
 Break through time : 480 min
 Glove thickness : 0.5 mm

Material : Polychloroprene
 Break through time : 480 min
 Glove thickness : 0.5 mm

Remarks : Protective gloves complying with EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : Tightly fitting safety goggles
Eye protection (EN 166)

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 12.12.2018
 Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

- Skin and body protection : Chemical resistant protective clothing according to DIN EN 13034 (Type 6)
- Protective measures : Always have on hand a first-aid kit, together with proper instructions.
 Ensure that eye flushing systems and safety showers are located close to the working place.
 Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Colour : colourless
- pH : ca. 4.0
- Boiling point/boiling range : No data available
- Flash point : Not applicable
- Flammability (solid, gas) : Not applicable
- Vapour pressure : No data available
- Density : ca. 1.03 g/cm³
- Solubility(ies)
 Water solubility : completely miscible
- Explosive properties : no explosion risk

SECTION 10. STABILITY AND REACTIVITY

- Reactivity : No dangerous reaction known under conditions of normal use.
- Chemical stability : Stable under recommended storage conditions.
- Possibility of hazardous reactions : Gives off hydrogen by reaction with metals.
- Conditions to avoid : Protect from frost, heat and sunlight.
- Incompatible materials : Incompatible with bases.
- Hazardous decomposition products : No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Product:**

Acute oral toxicity : Acute toxicity estimate: 753.23 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: 1,138 mg/kg
Method: Calculation method

Skin corrosion/irritation

Product : No data available

Serious eye damage/eye irritation

Product : No data available

Respiratory or skin sensitisation

Product : No data available

Chronic toxicity**Germ cell mutagenicity**

Product : No data available

Carcinogenicity

Product : No data available

Reproductive toxicity

Product : No data available

STOT - single exposure

Product : No data available

STOT - repeated exposure

Product : No data available

Aspiration toxicity

Product : No data available

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 12.12.2018
 Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Ammonium hydrogendifluoride:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 422 mg/l
 Exposure time: 96 h

Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Mobility in soil

Product:

Mobility : Remarks: No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : In accordance with local and national regulations.

Packaging : Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No. : UN 3264
 Proper shipping name : Corrosive liquid, acidic, inorganic, n.o.s.
 (Ammonium Bifluoride/ Ammonium Hydrogen Difluoride,
 Hexafluorotitanic acid, Hydrofluoric Acid)
 Class : 8
 Packing group : III
 Labels : Corrosives
 Packing instruction (cargo) : 856

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 12.12.2018
 Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

aircraft)

Packing instruction : 852
 (passenger aircraft)

IMDG-Code

UN number : UN 3264
 Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
 (Ammonium Bifluoride/ Ammonium Hydrogen Difluoride,
 Hexafluorotitanic acid, Hydrofluoric Acid)
 Class : 8
 Packing group : III
 Labels : 8
 EmS Code : F-A, S-B
 Marine pollutant : no
 Remarks : Acids, Clear of living quarters.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations**SECTION 15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture**

The product is classified and labelled in accordance with EC directives or respective national laws.
 Regional or national implementations of GHS may not implement all hazard classes and categories.

ACETIC ACID, GLACIAL

Standard for the Uniform : Schedule 6

Scheduling of Medicines and
Poisons**SECTION 16. OTHER INFORMATION****Full text of other abbreviations**

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 12.12.2018
 Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

- No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Further information

Other information :
 Date format : dd.mm.yyyy

AU / EN

Vertical lines in the left hand margin indicate an amendment from the previous version.

The content of this Safety Data Sheet (SDS) is based on an existing document from an acquired company with adaptations to Section I. The data is currently under validation.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Safety data sheet

Page: 1/11

Chemetall (now part of BASF Group) Safety data sheet

Date / Revised: 03.08.2021

Product: **GARDACID P 4449**

Version: 1.0

(919059/SDS_GEN_AU/EN)

Date of print 04.08.2021

1. Substance/preparation and manufacturer/supplier identification

00000919059
GARDACID P 4449

Recommended use: Acid cleaner for metal surfaces., Restricted to professional users.

Not recommended use: None known

Manufacturer/supplier:

Chemetall (Australasia) Pty Ltd

ABN 25 074 869 015

Head Office: 17 Turbo Drive, Bayswater North, Vic 3153, Australia

Freecall: 1800 008 738

Telephone: +61 3 9729 6253

Telefax number: +61 3 9720 1711

E-mail address: customer.service.au@basf.com

Emergency information:

BASF Emergency Advice Number: 1800 803 440 (24h) [within Australia]

BASF Emergency Advice Number: + 61 3 8855 6666 [outside Australia]

2. Hazard identification

Classification of the substance and mixture:

Acute toxicity: Cat. 2 (oral)

Acute toxicity: Cat. 1 (dermal)

Acute toxicity: Cat. 3 (Inhalation - vapour)

Skin corrosion/irritation: Cat. 1A

Serious eye damage/eye irritation: Cat. 1

Corrosive to metals: Cat. 1

Label elements and precautionary statement:

Pictogram:



Signal Word:
 Danger

Hazard Statement:

H314 Causes severe skin burns and eye damage.
 H310 Fatal in contact with skin.
 H331 Toxic if inhaled.
 H300 Fatal if swallowed.
 H290 May be corrosive to metals.

Precautionary Statements (Prevention):

P280 Wear protective gloves, protective clothing and eye protection or face protection.
 P271 Use only outdoors or in a well-ventilated area.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P260 Do not breathe dust or mist.
 P270 Do not eat, drink or smoke when using this product.
 P262 Do not get in eyes, on skin, or on clothing.
 P234 Keep only in original packaging.
 P264 Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or physician.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P303 + P361 + P353 IF ON SKIN (or hair): Remove or Take off immediately all contaminated clothing. Rinse skin with water or shower.
 P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P310 Immediately call a POISON CENTER or physician.
 P330 Rinse mouth
 P363 Wash contaminated clothing 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):

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 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.

Other hazards which do not result in classification:

Classified as 'corrosive' due to pH value. (Regulation (EC) No. 1272/2008)

HYDROGEN FLUORIDE, AMMONIUM FLUORIDE, Orthophosphoric acid, Sulphuric acid,
 AMMONIUM BIFLUORIDE, 1-hydroxyethylidenedi(phosphonic acid)

3. Composition/information on ingredients

Chemical nature

aqueous solution

inorganic acids

Hazardous ingredients

phosphoric acid

Content (W/W): $\geq 5\%$ - $< 7\%$

CAS Number: 7664-38-2

Met. Corr.: Cat. 1

Acute Tox.: Cat. 5 (oral)

Skin Corr./Irrit.: Cat. 1B

Eye Dam./Irrit.: Cat. 1

sulphuric acid

Content (W/W): $\geq 7\%$ - $< 10\%$

CAS Number: 7664-93-9

Acute Tox.: Cat. 5 (oral)

Skin Corr./Irrit.: Cat. 1A

Eye Dam./Irrit.: Cat. 1

Hydrofluoric acid

Content (W/W): $\geq 15\%$ - $< 20\%$

CAS Number: 7664-39-3

Acute Tox.: Cat. 2 (Inhalation - gas)

Acute Tox.: Cat. 2 (oral)

Acute Tox.: Cat. 1 (dermal)

Skin Corr./Irrit.: Cat. 1A

Eye Dam./Irrit.: Cat. 1

Aquatic Acute: Cat. 3

Etidronic acid

Content (W/W): $\geq 1\%$ - $< 2\%$

CAS Number: 2809-21-4

Met. Corr.: Cat. 1

Acute Tox.: Cat. 4 (oral)

Eye Dam./Irrit.: Cat. 1

4. 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. Show container, label and/or safety data sheet to physician.

If inhaled:

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

On skin contact:

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. Apply calcium gluconate gel. Immediate medical attention required.

On contact with 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.

On ingestion:

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

Note to physician:

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.

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.

Treatment: Administration of calcium gluconate.

5. Fire-Fighting Measures

Suitable extinguishing media:

carbon dioxide, dry powder, alcohol-resistant foam, water spray

Unsuitable extinguishing media for safety reasons:

water jet

Specific hazards:

fluorinated compounds

Special protective equipment:

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. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:

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 for cleaning up or taking up:

For large amounts: Use chemical neutralizing agents.

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

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. Avoid contact with skin and eyes. Keep away from food, drink and animal feeding stuffs. 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.

Storage

Segregate from bases.

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

Suitable materials for containers: rubberized

Further information on storage conditions: avoid contact with metals Keep away from heat.

Storage stability:

Storage temperature: 0 - 45 °C

Protect from temperatures below: 0 °C

Protect from temperatures above: 45 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

phosphoric acid, 7664-38-2;

TWA value 1 mg/m³ (ACGIHTLV)

STEL value 3 mg/m³ (ACGIHTLV)

TWA value 1 mg/m³ (AU NOEL)

STEL value 3 mg/m³ (AU NOEL)

sulphuric acid, 7664-93-9;

TWA value 0.2 mg/m³ (ACGIHTLV), Thoracic fraction
 TWA value 1 mg/m³ (AU NOEL)
 STEL value 3 mg/m³ (AU NOEL)

Hydrofluoric acid, 7664-39-3;

CLV 2 ppm (ACGIHTLV)
 Measured as: fluorine (F)
 TWA value 0.5 ppm (ACGIHTLV)
 Measured as: fluorine (F)
 Peak limitation 2.6 mg/m³ ; 3 ppm (AU NOEL)
 Measured as: fluorine (F)
 Skin Designation (ACGIHTLV)
 Measured as: fluorine (F)
 Danger of cutaneous absorption
 Skin Designation (ACGIHTLV)
 Measured as: fluorine (F)
 Danger of cutaneous absorption

Personal protective equipment

Respiratory protection:

Self-contained breathing apparatus. Respiratory protection required if exposure limit (if available) may be exceeded (Gas filter EN 14387 B)

Hand protection:

Chemical resistant protective gloves (EN ISO 374-1)
 polyvinylchloride (PVC) - 0.7 mm coating thickness
 chloroprene rubber (CR) - 0.5 mm coating thickness
 natural rubber/natural latex (NR) - 0.5 mm coating thickness
 butyl rubber gloves - material thickness: 0.5 mm
 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:

Handle in accordance with good industrial hygiene and safety practice. Eye wash fountains and safety showers must be easily accessible. 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:	pungent	
pH value:	< 2.0	
Melting point:	< 0 °C	
onset of boiling:	not determined	
Flash point:	not applicable	
Flammability (solid/gas):	not applicable	
Lower explosion limit:	not determined	
Ignition temperature:	not determined	
Self heating ability:	It is not a substance capable of spontaneous heating.	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	(20 °C) not determined	
	(50 °C) not determined	
Density:	1.130 g/cm ³ (20 °C)	
Solubility in water:	completely miscible	
Miscibility with water:	miscible	
Viscosity, kinematic:	6.0 mm ² /s (20 °C)	
	(40 °C) not determined	
Flow time:	< 30 s	(DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:
 Avoid direct sunlight.

Substances to avoid:
 glass, metal, bases

Corrosion to metals: Corrosive effect on metals.

Hazardous reactions:

In aqueous solution, evolves hydrogen on contact with metals.

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

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.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:

Of very high toxicity after short-term skin contact. Of very high toxicity after single ingestion. Of pronounced toxicity after short-term inhalation.

Experimental/calculated data:

ATE (oral): 39.43 mg/kg (calculated)

ATE (by inhalation): > 4.04 mg/l 4 h (calculated)

The vapour was tested.

ATE (dermal): > 40.48 mg/kg (calculated)

Information on: phosphoric acid

Experimental/calculated data:

LD50 rat (oral): 3,300 mg/kg (OECD Guideline 401)

Information on: sulphuric acid

Experimental/calculated data:

LD50 rat (oral): 2,140 mg/kg

Respiratory/Skin sensitization

Assessment of sensitization:

Based on available data, the classification criteria are not met.

Experimental/calculated data:

No data available.

Germ cell mutagenicity

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.

Developmental toxicity

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

Specific target organ toxicity (single exposure):

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

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

No aspiration hazard expected.

12. Ecological Information

Ecotoxicity

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.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

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

Bioaccumulation potential

Bioaccumulation potential:
No data available.

Additional information

Other ecotoxicological advice:

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 03.08.2021
 Product: **GARDACID P 4449**

Version: 1.0

(919059/SDS_GEN_AU/EN)

Date of print 04.08.2021

Do not allow to enter drains or waterways. Do not allow to enter soil, waterways or waste water channels. Even leakage of small amounts in the subsoil can contaminate drinking water.

13. Disposal Considerations

Observe national and local legal requirements.

14. Transport Information

Domestic transport:

Packing group: II
 ID number: UN 2922
 Transport hazard class(es): 8, 6.1
 Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (contains SULPHURIC ACID, HYDROFLUORIC ACID)

Further information

Hazchem Code:2X
 IERG Number:37

Sea transport

IMDG

Packing group: II
 ID number: UN 2922
 Transport hazard class(es): 8, 6.1
 Marine pollutant: NO
 Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (contains SULPHURIC ACID, HYDROFLUORIC ACID)

Air transport

IATA/ICAO

Packing group: II
 ID number: UN 2922
 Transport hazard class(es): 8, 6.1
 Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (contains SULPHURIC ACID, HYDROFLUORIC ACID)

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Chemetall (now part of BASF Group) Safety data sheet
Date / Revised: 03.08.2021
Product: **GARDACID P 4449**

Version: 1.0

(919059/SDS_GEN_AU/EN)

Date of print 04.08.2021

Registration status:

AICS, AU

released / listed

16. Other Information

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Disclosure 100

Safety data sheet

Page: 1/10

Chemetall (now part of BASF Group) Safety data sheet

Date / Revised: 04.02.2020

Product: **GARDOSTRIP 5628 LA-1**

Version: 1.0

(30720621/SDS_GEN_AU/EN)

Date of print 16.06.2020

1. Substance/preparation and manufacturer/supplier identification

GARDOSTRIP 5628 LA-1

Recommended use: Detergents

Not recommended use: None known

Manufacturer/supplier:

Chemetall (Australasia) Pty Ltd

ABN 25 074 869 015

Head Office: 17 Turbo Drive, Bayswater North, Vic 3153, Australia

Freecall: 1800 008 738

Telephone: +61 3 9729 6253

Telefax number: +61 3 9720 1711

E-mail address: customer.service.au@basf.com

Emergency information:

Telephone: 1800 033 111

2. Hazard identification

Classification of the substance and mixture:

Acute toxicity: Cat. 4 (oral)

Skin corrosion/irritation: Cat. 1A

Serious eye damage/eye irritation: Cat. 1

Corrosive to metals: Cat. 1

Label elements and precautionary statement:

Pictogram:



Signal Word:
 Danger

Hazard Statement:

H314 Causes severe skin burns and eye damage.
 H302 Harmful if swallowed.
 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.
 P270 Do not eat, drink or smoke when using this product.
 P260 Do not breathe dust or mist.

Precautionary Statements (Response):

P303 + P361 + P353 IF ON SKIN (or hair): Remove or 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.
 P363 Wash contaminated clothing before reuse.
 P330 Rinse mouth.
 P310 Immediately call a POISON CENTER or doctor/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.

Other hazards which do not result in classification:

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. 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

Chemical nature

inorganic, aqueous solution

Hazardous ingredients

potassium hydroxide

Content (W/W): $\geq 50\%$ - $< 75\%$

CAS Number: 1310-58-3

Met. Corr.: Cat. 1

Acute Tox.: Cat. 4 (oral)

Skin Corr./Irrit.: Cat. 1A

Eye Dam./Irrit.: Cat. 1

4. First-Aid Measures

General advice:

Immediately remove contaminated clothing. First aid personnel should pay attention to their own safety. Remove affected person from danger area. Show container, label and/or safety data sheet to physician.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. If symptoms persist, seek medical advice.

On skin contact:

Flush with copious amounts of water for at least 15 minutes. Immediate medical attention required.

On contact with 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.

On ingestion:

Rinse mouth immediately with water. Do not induce vomiting. Summon medical aid without delay.

Note to physician:

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.

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.

Treatment: Symptomatic treatment (decontamination, vital functions).

Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:

carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:

water jet

Specific hazards:

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

Special protective equipment:
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:
Use personal protective clothing. Avoid breathing vapours. Keep away from sources of ignition. Ensure adequate ventilation. 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 for cleaning up or taking 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.

7. Handling and Storage

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. Avoid contact with skin and eyes. Keep away from food, drink and animal feeding stuffs. Warn users about safety measures and precautions to prevent accidents.

Protection against fire and explosion:
The substance/product is non-combustible. The relevant fire protection measures should be noted.

Storage

Segregate from acids.

Suitable materials for containers: Carbon steel (Iron), tinned carbon steel (Tinplate), 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 contact with metals Protect from frost. Avoid direct sunlight.

8. Exposure controls and personal protection

Components with occupational exposure limits

potassium hydroxide, 1310-58-3;
CLV 2 mg/m³ (ACGIHTLV)
Peak limitation 2 mg/m³ (AU NOEL)
Peak limitation 2 mg/m³ (OEL (AU))

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. (Gas filter EN 14387 B)

Hand protection:

Chemical resistant protective gloves (EN 374)

Further information on penetration time is available from the manufacturer of the glove.

The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).

Use suitable protective gloves made of nitrile rubber or butyl rubber. Please observe the glove manufacturer's instructions on permeability and rupture times as well as the specific workplace conditions.

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. 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
Colour:	clear
	clear
Odour:	No data available.
Odour threshold:	No data available.
pH value:	< 14.0 (20 °C) (undiluted)
Melting point:	not determined

Chemetall (now part of BASF Group) Safety data sheet
Date / Revised: 04.02.2020
Product: **GARDOSTRIP 5628 LA-1**

Version: 1.0

(30720621/SDS_GEN_AU/EN)

Date of print 16.06.2020

onset of boiling: not determined

Flash point: > 99 °C

Evaporation rate: No data available.

Flammability (solid/gas): hardly combustible

Lower explosion limit: not determined

Ignition temperature: not determined

Self heating ability: It is not a substance capable of spontaneous heating.

Explosion hazard: not explosive

Fire promoting properties: not fire-propagating

Vapour pressure:
(20 °C)
not determined

(50 °C)
not determined

Density: 1.500 g/cm³
(20 °C)

Relative vapour density (air): No data available.

Solubility in water: soluble

Miscibility with water: miscible

Viscosity, kinematic: 6.0 mm²/s
(20 °C)

(40 °C)
not determined

Flow time: Unspecified

10. Stability and Reactivity

Conditions to avoid:
Protect from sunlight.

Substances to avoid:
acids, light metals

Chemetall (now part of BASF Group) Safety data sheet
Date / Revised: 04.02.2020
Product: **GARDOSTRIP 5628 LA-1**

Version: 1.0

(30720621/SDS_GEN_AU/EN)

Date of print 16.06.2020

Corrosion to metals: Corrosive effect on metals.

Hazardous reactions:

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

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.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:

Of moderate toxicity after single ingestion.

Experimental/calculated data:

ATE (oral): 730 mg/kg (calculated)

Information on: potassium hydroxide

Experimental/calculated data:

LD50 rat (oral): 333 mg/kg (OECD Guideline 425)

Literature data.

Irritation

Assessment of irritating effects:

Highly corrosive! Damages skin and eyes. May cause severe damage to the eyes.

Respiratory/Skin sensitization

Assessment of sensitization:

Based on available Data, the classification criteria are not met.

Germ cell mutagenicity

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.

Developmental toxicity

Assessment of teratogenicity:

Based on available Data, the classification criteria are not met.

Specific target organ toxicity (single exposure):

Assessment of STOT single:

Based on available Data, the classification criteria are not met.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

Based on available Data, the classification criteria are not met.

Aspiration hazard

No aspiration hazard expected.

12. Ecological Information

Ecotoxicity

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.

Mobility

Assessment transport between environmental compartments:

No data available.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

No data available concerning biodegradation and elimination.

Elimination information:

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request or at the request of a detergent manufacturer.

Bioaccumulation potential

Bioaccumulation potential:

No data available.

13. Disposal Considerations

Observe national and local legal requirements.

Chemetall (now part of BASF Group) Safety data sheet
Date / Revised: 04.02.2020
Product: **GARDOSTRIP 5628 LA-1**

Version: 1.0

(30720621/SDS_GEN_AU/EN)

Date of print 16.06.2020

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

14. Transport Information

Domestic transport:

Packing group: II
ID number: UN 1814
Transport hazard class(es): 8
Proper shipping name: POTASSIUM HYDROXIDE SOLUTION

Further information

Hazchem Code:2R
IERG Number:37

Sea transport

IMDG

Packing group: II
ID number: UN 1814
Transport hazard class(es): 8
Marine pollutant: NO
Proper shipping name: POTASSIUM HYDROXIDE SOLUTION

Air transport

IATA/ICAO

Packing group: II
ID number: UN 1814
Transport hazard class(es): 8
Proper shipping name: POTASSIUM HYDROXIDE SOLUTION

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Registration status:

AICS, AU released / listed

16. Other Information

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Disclosure log

Gardacid P4449

Cleaner and stripper for Aluminium

Description

Gardacid P4449 is a borate-free, liquid cleaner and stripper for Aluminium.
Gardacid P4449 is primarily formulated for pickling Aluminium surfaces.

The special composition of **Gardacid P4449** facilitates the removal of fluoride in the wastewater, obtaining values below 10 ppm in the treated wastewater depending on the conditions of the treatment.

The **Gardacid P4449** is applied by spray and cascade.

Applications

SPRAY

Bath temperature:	Ambient – 45 °C
Treatment time:	20 sec – 5 minutes
Bath make-up:	10 – 15 g/l (8.8 – 16.2 ml/l) of Gardacid P4449
Free Acid:	9 – 14 pointage

Bath temperature and concentration should be controlled in plant to maintain the desired minimum etch rate, usually 1 – 2 g/m².

Product Characteristics

Appearance:	Clear, yellow liquid
Stability:	0 - 45°C
pH (neat)	Approx 3.2
Specific Gravity:	Approx 1.14 g/ml

These are typical values only and do not constitute a specification.

Bath Analysis

Free Acid (FA)

1. Take 10ml of solution and add 3-4 drops of Bromocresol Green indicator.
2. Titrate with 0.1N NaOH (Sodium Hydroxide) until yellow colour changes to blue.

No. of mls = 1.0 Free Acid Pointage

Bath replenishment FA:

For each free acid pointage consumed add 1.1 g/l of **Gardacid P4449**

Total acid (TA):

1. Take 10ml of solution and add 3-4 drops of Phenolphthalein indicator.
2. Titrate with 0.1N NaOH (Sodium Hydroxide) from colourless to pink.

No. of mls = 1.0 Total Acid Pointage

For proper maintenance of the product pickling properties and to minimize sludge maintain $TA / FA < 4.5$

Bath maintained between 9 and 20 FA points, allowed an attack of 2 g/m² in 2 minutes about 40° C.

Aluminium concentration = approx $(TA-FA) \times 0.15$ g/litre

Equipment materials

Bath tank, spray tunnel, heating elements, pump mains, spray tubes and spray nozzles:-

Chromium nickel molybdenum steel (316) may be used with limitations.

Acid-proof plastics such as polypropylene and PVC are preferred.

Packaging

Available in 1000 litre containers.

Safety, Transport and Storage Information

Please refer to the Safety Data Sheet.

Issue Date: July 2018

The above data have been compiled to the best of our knowledge on the basis of thorough tests and with regard to the current state of our long practical experience. No liabilities or guarantee deriving from or in connection with this leaflet can be imputed to us. – Reproduction, in whole or in part, only with our express permission.

Safety data sheet

Page: 1/11

Chemetall (now part of BASF Group) Safety data sheet

Date / Revised: 03.08.2021

Product: **GARDACID P 4449**

Version: 1.0

(919059/SDS_GEN_AU/EN)

Date of print 04.08.2021

1. Substance/preparation and manufacturer/supplier identification

00000919059
GARDACID P 4449

Recommended use: Acid cleaner for metal surfaces., Restricted to professional users.

Not recommended use: None known

Manufacturer/supplier:

Chemetall (Australasia) Pty Ltd

ABN 25 074 869 015

Head Office: 17 Turbo Drive, Bayswater North, Vic 3153, Australia

Freecall: 1800 008 738

Telephone: +61 3 9729 6253

Telefax number: +61 3 9720 1711

E-mail address: customer.service.au@basf.com

Emergency information:

BASF Emergency Advice Number: 1800 803 440 (24h) [within Australia]

BASF Emergency Advice Number: + 61 3 8855 6666 [outside Australia]

2. Hazard identification

Classification of the substance and mixture:

Acute toxicity: Cat. 2 (oral)

Acute toxicity: Cat. 1 (dermal)

Acute toxicity: Cat. 3 (Inhalation - vapour)

Skin corrosion/irritation: Cat. 1A

Serious eye damage/eye irritation: Cat. 1

Corrosive to metals: Cat. 1

Label elements and precautionary statement:

Pictogram:



Signal Word:
 Danger

Hazard Statement:

H314 Causes severe skin burns and eye damage.
 H310 Fatal in contact with skin.
 H331 Toxic if inhaled.
 H300 Fatal if swallowed.
 H290 May be corrosive to metals.

Precautionary Statements (Prevention):

P280 Wear protective gloves, protective clothing and eye protection or face protection.
 P271 Use only outdoors or in a well-ventilated area.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P260 Do not breathe dust or mist.
 P270 Do not eat, drink or smoke when using this product.
 P262 Do not get in eyes, on skin, or on clothing.
 P234 Keep only in original packaging.
 P264 Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or physician.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P303 + P361 + P353 IF ON SKIN (or hair): Remove or Take off immediately all contaminated clothing. Rinse skin with water or shower.
 P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P310 Immediately call a POISON CENTER or physician.
 P330 Rinse mouth
 P363 Wash contaminated clothing 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):

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 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.

Other hazards which do not result in classification:

Classified as 'corrosive' due to pH value. (Regulation (EC) No. 1272/2008)

HYDROGEN FLUORIDE, AMMONIUM FLUORIDE, Orthophosphoric acid, Sulphuric acid,
 AMMONIUM BIFLUORIDE, 1-hydroxyethylidenedi(phosphonic acid)

3. Composition/information on ingredients

Chemical nature

aqueous solution

inorganic acids

Hazardous ingredients

phosphoric acid

Content (W/W): $\geq 5\%$ - $< 7\%$
 CAS Number: 7664-38-2

Met. Corr.: Cat. 1
 Acute Tox.: Cat. 5 (oral)
 Skin Corr./Irrit.: Cat. 1B
 Eye Dam./Irrit.: Cat. 1

sulphuric acid

Content (W/W): $\geq 7\%$ - $< 10\%$
 CAS Number: 7664-93-9

Acute Tox.: Cat. 5 (oral)
 Skin Corr./Irrit.: Cat. 1A
 Eye Dam./Irrit.: Cat. 1

Hydrofluoric acid

Content (W/W): $\geq 15\%$ - $< 20\%$
 CAS Number: 7664-39-3

Acute Tox.: Cat. 2 (Inhalation - gas)
 Acute Tox.: Cat. 2 (oral)
 Acute Tox.: Cat. 1 (dermal)
 Skin Corr./Irrit.: Cat. 1A
 Eye Dam./Irrit.: Cat. 1
 Aquatic Acute: Cat. 3

Etidronic acid

Content (W/W): $\geq 1\%$ - $< 2\%$
 CAS Number: 2809-21-4

Met. Corr.: Cat. 1
 Acute Tox.: Cat. 4 (oral)
 Eye Dam./Irrit.: Cat. 1

4. 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. Show container, label and/or safety data sheet to physician.

If inhaled:

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

On skin contact:

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. Apply calcium gluconate gel. Immediate medical attention required.

On contact with 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.

On ingestion:

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

Note to physician:

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.

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.

Treatment: Administration of calcium gluconate.

5. Fire-Fighting Measures

Suitable extinguishing media:

carbon dioxide, dry powder, alcohol-resistant foam, water spray

Unsuitable extinguishing media for safety reasons:

water jet

Specific hazards:

fluorinated compounds

Special protective equipment:

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. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental Release Measures

Personal precautions:

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 for cleaning up or taking up:

For large amounts: Use chemical neutralizing agents.

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

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. Avoid contact with skin and eyes. Keep away from food, drink and animal feeding stuffs. 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.

Storage

Segregate from bases.

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

Suitable materials for containers: rubberized

Further information on storage conditions: avoid contact with metals Keep away from heat.

Storage stability:

Storage temperature: 0 - 45 °C

Protect from temperatures below: 0 °C

Protect from temperatures above: 45 °C

8. Exposure controls and personal protection

Components with occupational exposure limits

phosphoric acid, 7664-38-2;

TWA value 1 mg/m³ (ACGIHTLV)

STEL value 3 mg/m³ (ACGIHTLV)

TWA value 1 mg/m³ (AU NOEL)

STEL value 3 mg/m³ (AU NOEL)

sulphuric acid, 7664-93-9;

TWA value 0.2 mg/m³ (ACGIHTLV), Thoracic fraction
 TWA value 1 mg/m³ (AU NOEL)
 STEL value 3 mg/m³ (AU NOEL)

Hydrofluoric acid, 7664-39-3;

CLV 2 ppm (ACGIHTLV)
 Measured as: fluorine (F)
 TWA value 0.5 ppm (ACGIHTLV)
 Measured as: fluorine (F)
 Peak limitation 2.6 mg/m³ ; 3 ppm (AU NOEL)
 Measured as: fluorine (F)
 Skin Designation (ACGIHTLV)
 Measured as: fluorine (F)
 Danger of cutaneous absorption
 Skin Designation (ACGIHTLV)
 Measured as: fluorine (F)
 Danger of cutaneous absorption

Personal protective equipment

Respiratory protection:

Self-contained breathing apparatus. Respiratory protection required if exposure limit (if available) may be exceeded (Gas filter EN 14387 B)

Hand protection:

Chemical resistant protective gloves (EN ISO 374-1)
 polyvinylchloride (PVC) - 0.7 mm coating thickness
 chloroprene rubber (CR) - 0.5 mm coating thickness
 natural rubber/natural latex (NR) - 0.5 mm coating thickness
 butyl rubber gloves - material thickness: 0.5 mm
 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:

Handle in accordance with good industrial hygiene and safety practice. Eye wash fountains and safety showers must be easily accessible. 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:	pungent	
pH value:	< 2.0	
Melting point:	< 0 °C	
onset of boiling:	not determined	
Flash point:	not applicable	
Flammability (solid/gas):	not applicable	
Lower explosion limit:	not determined	
Ignition temperature:	not determined	
Self heating ability:	It is not a substance capable of spontaneous heating.	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	(20 °C) not determined	
	(50 °C) not determined	
Density:	1.130 g/cm ³ (20 °C)	
Solubility in water:	completely miscible	
Miscibility with water:	miscible	
Viscosity, kinematic:	6.0 mm ² /s (20 °C)	
	(40 °C) not determined	
Flow time:	< 30 s	(DIN EN ISO 2431; 3 mm)

10. Stability and Reactivity

Conditions to avoid:
 Avoid direct sunlight.

Substances to avoid:
 glass, metal, bases

Corrosion to metals: Corrosive effect on metals.

Hazardous reactions:

In aqueous solution, evolves hydrogen on contact with metals.

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

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.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:

Of very high toxicity after short-term skin contact. Of very high toxicity after single ingestion. Of pronounced toxicity after short-term inhalation.

Experimental/calculated data:

ATE (oral): 39.43 mg/kg (calculated)

ATE (by inhalation): > 4.04 mg/l 4 h (calculated)

The vapour was tested.

ATE (dermal): > 40.48 mg/kg (calculated)

Information on: phosphoric acid

Experimental/calculated data:

LD50 rat (oral): 3,300 mg/kg (OECD Guideline 401)

Information on: sulphuric acid

Experimental/calculated data:

LD50 rat (oral): 2,140 mg/kg

Respiratory/Skin sensitization

Assessment of sensitization:

Based on available data, the classification criteria are not met.

Experimental/calculated data:

No data available.

Germ cell mutagenicity

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.

Developmental toxicity

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

Specific target organ toxicity (single exposure):

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

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

No aspiration hazard expected.

12. Ecological Information

Ecotoxicity

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.

Mobility

Assessment transport between environmental compartments:
No data available.

Persistence and degradability

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

Bioaccumulation potential

Bioaccumulation potential:
No data available.

Additional information

Other ecotoxicological advice:

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 03.08.2021
 Product: **GARDACID P 4449**

Version: 1.0

(919059/SDS_GEN_AU/EN)

Date of print 04.08.2021

Do not allow to enter drains or waterways. Do not allow to enter soil, waterways or waste water channels. Even leakage of small amounts in the subsoil can contaminate drinking water.

13. Disposal Considerations

Observe national and local legal requirements.

14. Transport Information

Domestic transport:

Packing group: II
 ID number: UN 2922
 Transport hazard class(es): 8, 6.1
 Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (contains SULPHURIC ACID, HYDROFLUORIC ACID)

Further information

Hazchem Code:2X
 IERG Number:37

Sea transport

IMDG

Packing group: II
 ID number: UN 2922
 Transport hazard class(es): 8, 6.1
 Marine pollutant: NO
 Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (contains SULPHURIC ACID, HYDROFLUORIC ACID)

Air transport

IATA/ICAO

Packing group: II
 ID number: UN 2922
 Transport hazard class(es): 8, 6.1
 Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (contains SULPHURIC ACID, HYDROFLUORIC ACID)

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Chemetall (now part of BASF Group) Safety data sheet
Date / Revised: 03.08.2021
Product: **GARDACID P 4449**

Version: 1.0

(919059/SDS_GEN_AU/EN)

Date of print 04.08.2021

Registration status:

AICS, AU

released / listed

16. Other Information

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Disclosure 100

Safety data sheet

Page: 1/10

Chemetall (now part of BASF Group) Safety data sheet
Date / Revised: 12.12.2018
Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

1. Substance/preparation and manufacturer/supplier identification

241752000 GARDOBOND X4707E-12 (BULK)

Manufacturer/supplier:

Chemetall (Australasia) Pty Ltd
ABN 25 074 869 015
Head Office: 17 Turbo Drive, Bayswater North, Vic 3153, Australia
Freecall: 1800 008 738
Telephone: +61 3 9729 6253
Telefax number: +61 3 9720 1711
E-mail address: customer.service.au@basf.com

Emergency information:

Telephone: 1800 033 111

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 4
Acute toxicity (Dermal) : Category 4
Skin corrosion/irritation : Category 2
Serious eye damage/eye irritation : Category 1


GHS label elements

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 12.12.2018
 Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

Hazard pictograms : 

Signal word : Danger

Hazard statements : H302 + H312 Harmful if swallowed or in contact with skin
 H314 Causes severe skin burns and eye damage.

Precautionary statements : **Prevention:**
 P262 Do not get in eyes, on skin, or on clothing.
 P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
 P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 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 or doctor/ physician.
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.
 P362 Take off contaminated clothing and wash before reuse.
Disposal:
 P501 Dispose of contents/ container to an approved waste disposal plant.

In use hazards

An in-use solution of less than 15% is not classified as hazardous according to GHS criteria.
 An in-use solution of 15 - 50% has the signal word WARNING according to GHS criteria.

Other hazards which do not result in classification

The information required is contained in this Material Safety Data Sheet.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Ammonium hydrogendifluoride	1341-49-7	< 10
Hexafluorotitanic acid	17439-11-1	< 10

SECTION 4. FIRST AID MEASURES

General advice : First Aid responders should pay attention to self-protection and

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 12.12.2018
 Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

	use the recommended protective clothing Move out of dangerous area. Take off contaminated clothing and shoes immediately.
Inhalation	: Move to fresh air. If symptoms persist, call a physician.
Skin contact	: Wash off immediately with plenty of water for at least 15 minutes. Call a physician immediately. First treatment with calcium gluconate paste.
Eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
Ingestion	: Rinse mouth with water. Immediately drink calcium solution (calcium tablets dissolved in water). Do NOT induce vomiting. Call a physician immediately.
Most important symptoms and effects, both acute and delayed	: Causes severe skin burns and eye damage. Watch victim for several hours because of possible delayed signs of poisoning. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.
Notes to physician	: First treatment with calcium gluconate paste. Immediately drink calcium solution (calcium tablets dissolved in water). For specialist advice physicians should contact the Poisons Information Service.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Carbon dioxide (CO ₂) Dry powder Water spray jet Alcohol-resistant foam
Unsuitable extinguishing media	: High volume water jet
Specific hazards during firefighting	: Heating or fire can release toxic gas.
Specific extinguishing methods	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Use water spray to cool unopened containers.

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 12.12.2018
 Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Wear personal protective equipment.
 Evacuate personnel to safe areas.
 For further information see Section 8 of the safety data sheet.
 For disposal considerations see section 13.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.
 Avoid subsoil penetration.
- Methods and materials for containment and cleaning up : Ensure adequate ventilation.
 Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
 Sweep up and shovel into suitable containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Normal measures for preventive fire protection. The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.
 Avoid contact with skin and eyes.
 Ensure that eye flushing systems and safety showers are located close to the working place.
 Do not breathe vapours, aerosols.
 To avoid risks to man and the environment, comply with the instructions for use.
- Hygiene measures : Take off contaminated clothing and shoes immediately.
 Avoid contact with the skin and the eyes.
 Keep away from food, drink and animal feedingstuffs.
 Wash hands before breaks and immediately after handling the product.
- Conditions for safe storage : Store in a place accessible by authorized persons only.
 Store in original container.
 Keep container tightly closed in a dry and well-ventilated place.
 To maintain product quality, do not store in heat or direct sunlight.
- Materials to avoid : Incompatible with bases.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 12.12.2018
 Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ammonium hydrogendifluoride	1341-49-7	TWA	2.5 mg/m ³ (Fluorine)	AU OEL
		TWA	2.5 mg/m ³ (Fluorine)	ACGIH

Engineering measures : Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Respiratory protection : In case of inadequate ventilation wear respiratory protection.
Respirator with a vapour filter (EN 141)

Filter type : Inorganic gas/vapour type

Hand protection

Material : Fluorinated rubber
 Break through time : 480 min
 Glove thickness : 0.4 mm

Material : Nitrile rubber
 Break through time : 480 min
 Glove thickness : 0.35 mm

Material : butyl-rubber
 Break through time : 480 min
 Glove thickness : 0.5 mm

Material : Natural Rubber
 Break through time : 480 min
 Glove thickness : 0.5 mm

Material : PVC
 Break through time : 480 min
 Glove thickness : 0.5 mm

Material : Polychloroprene
 Break through time : 480 min
 Glove thickness : 0.5 mm

Remarks : Protective gloves complying with EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : Tightly fitting safety goggles
Eye protection (EN 166)

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 12.12.2018
 Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

Skin and body protection	: Chemical resistant protective clothing according to DIN EN 13034 (Type 6)
Protective measures	: Always have on hand a first-aid kit, together with proper instructions. Ensure that eye flushing systems and safety showers are located close to the working place. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: colourless
pH	: ca. 4.0
Boiling point/boiling range	: No data available
Flash point	: Not applicable
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Density	: ca. 1.03 g/cm ³
Solubility(ies) Water solubility	: completely miscible
Explosive properties	: no explosion risk

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Gives off hydrogen by reaction with metals.
Conditions to avoid	: Protect from frost, heat and sunlight.
Incompatible materials	: Incompatible with bases.
Hazardous decomposition products	: No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Product:**

Acute oral toxicity : Acute toxicity estimate: 753.23 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: 1,138 mg/kg
Method: Calculation method

Skin corrosion/irritation

Product : No data available

Serious eye damage/eye irritation

Product : No data available

Respiratory or skin sensitisation

Product : No data available

Chronic toxicity**Germ cell mutagenicity**

Product : No data available

Carcinogenicity

Product : No data available

Reproductive toxicity

Product : No data available

STOT - single exposure

Product : No data available

STOT - repeated exposure

Product : No data available

Aspiration toxicity

Product : No data available

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 12.12.2018
 Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Ammonium hydrogendifluoride:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 422 mg/l
 Exposure time: 96 h

Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Mobility in soil

Product:

Mobility : Remarks: No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : In accordance with local and national regulations.

Packaging : Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No. : UN 3264
 Proper shipping name : Corrosive liquid, acidic, inorganic, n.o.s.
 (Ammonium Bifluoride/ Ammonium Hydrogen Difluoride,
 Hexafluorotitanic acid, Hydrofluoric Acid)
 Class : 8
 Packing group : III
 Labels : Corrosives
 Packing instruction (cargo) : 856

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 12.12.2018
 Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

aircraft)

Packing instruction : 852
 (passenger aircraft)

IMDG-Code

UN number : UN 3264
 Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
 (Ammonium Bifluoride/ Ammonium Hydrogen Difluoride,
 Hexafluorotitanic acid, Hydrofluoric Acid)
 Class : 8
 Packing group : III
 Labels : 8
 EmS Code : F-A, S-B
 Marine pollutant : no
 Remarks : Acids, Clear of living quarters.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations**SECTION 15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture**

The product is classified and labelled in accordance with EC directives or respective national laws.
 Regional or national implementations of GHS may not implement all hazard classes and categories.

ACETIC ACID, GLACIAL

Standard for the Uniform : Schedule 6

Scheduling of Medicines and
Poisons**SECTION 16. OTHER INFORMATION****Full text of other abbreviations**

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 12.12.2018
 Product: **241752000 GARDOBOND X4707E-12 (BULK)**

Version: 1.0

(30720710/SDU_GEN_AU/EN)

Date of print 20.07.2020

- No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Further information

Other information :
 Date format : dd.mm.yyyy

AU / EN

Vertical lines in the left hand margin indicate an amendment from the previous version.

The content of this Safety Data Sheet (SDS) is based on an existing document from an acquired company with adaptations to Section I. The data is currently under validation.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Safety data sheet

Page: 1/10

Chemetall (now part of BASF Group) Safety data sheet

Date / Revised: 04.02.2020

Product: **GARDOSTRIP 5628 LA-1**

Version: 1.0

(30720621/SDS_GEN_AU/EN)

Date of print 16.06.2020

1. Substance/preparation and manufacturer/supplier identification

GARDOSTRIP 5628 LA-1

Recommended use: Detergents

Not recommended use: None known

Manufacturer/supplier:

Chemetall (Australasia) Pty Ltd

ABN 25 074 869 015

Head Office: 17 Turbo Drive, Bayswater North, Vic 3153, Australia

Freecall: 1800 008 738

Telephone: +61 3 9729 6253

Telefax number: +61 3 9720 1711

E-mail address: customer.service.au@basf.com

Emergency information:

Telephone: 1800 033 111

2. Hazard identification

Classification of the substance and mixture:

Acute toxicity: Cat. 4 (oral)

Skin corrosion/irritation: Cat. 1A

Serious eye damage/eye irritation: Cat. 1

Corrosive to metals: Cat. 1

Label elements and precautionary statement:

Pictogram:



Signal Word:
 Danger

Hazard Statement:

H314 Causes severe skin burns and eye damage.
 H302 Harmful if swallowed.
 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.
 P270 Do not eat, drink or smoke when using this product.
 P260 Do not breathe dust or mist.

Precautionary Statements (Response):

P303 + P361 + P353 IF ON SKIN (or hair): Remove or 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.
 P363 Wash contaminated clothing before reuse.
 P330 Rinse mouth.
 P310 Immediately call a POISON CENTER or doctor/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.

Other hazards which do not result in classification:

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. 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

Chemical nature

inorganic, aqueous solution

Hazardous ingredients

potassium hydroxide

Content (W/W): $\geq 50\%$ - $< 75\%$

CAS Number: 1310-58-3

Met. Corr.: Cat. 1

Acute Tox.: Cat. 4 (oral)

Skin Corr./Irrit.: Cat. 1A

Eye Dam./Irrit.: Cat. 1

4. First-Aid Measures

General advice:

Immediately remove contaminated clothing. First aid personnel should pay attention to their own safety. Remove affected person from danger area. Show container, label and/or safety data sheet to physician.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. If symptoms persist, seek medical advice.

On skin contact:

Flush with copious amounts of water for at least 15 minutes. Immediate medical attention required.

On contact with 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.

On ingestion:

Rinse mouth immediately with water. Do not induce vomiting. Summon medical aid without delay.

Note to physician:

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.

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.

Treatment: Symptomatic treatment (decontamination, vital functions).

Antidote: No known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:

carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:

water jet

Specific hazards:

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

Special protective equipment:
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:
Use personal protective clothing. Avoid breathing vapours. Keep away from sources of ignition. Ensure adequate ventilation. 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 for cleaning up or taking 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.

7. Handling and Storage

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. Avoid contact with skin and eyes. Keep away from food, drink and animal feeding stuffs. Warn users about safety measures and precautions to prevent accidents.

Protection against fire and explosion:
The substance/product is non-combustible. The relevant fire protection measures should be noted.

Storage

Segregate from acids.

Suitable materials for containers: Carbon steel (Iron), tinned carbon steel (Tinplate), 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 contact with metals Protect from frost. Avoid direct sunlight.

8. Exposure controls and personal protection

Components with occupational exposure limits

potassium hydroxide, 1310-58-3;
CLV 2 mg/m³ (ACGIHTLV)
Peak limitation 2 mg/m³ (AU NOEL)
Peak limitation 2 mg/m³ (OEL (AU))

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. (Gas filter EN 14387 B)

Hand protection:

Chemical resistant protective gloves (EN 374)

Further information on penetration time is available from the manufacturer of the glove.

The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream).

Use suitable protective gloves made of nitrile rubber or butyl rubber. Please observe the glove manufacturer's instructions on permeability and rupture times as well as the specific workplace conditions.

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. 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
Colour:	clear
	clear
Odour:	No data available.
Odour threshold:	No data available.
pH value:	< 14.0 (20 °C) (undiluted)
Melting point:	not determined

Chemetall (now part of BASF Group) Safety data sheet
 Date / Revised: 04.02.2020
 Product: **GARDOSTRIP 5628 LA-1**

Version: 1.0

(30720621/SDS_GEN_AU/EN)

Date of print 16.06.2020

onset of boiling: not determined

Flash point: > 99 °C

Evaporation rate: No data available.

Flammability (solid/gas): hardly combustible

Lower explosion limit: not determined

Ignition temperature: not determined

Self heating ability: It is not a substance capable of spontaneous heating.

Explosion hazard: not explosive

Fire promoting properties: not fire-propagating

Vapour pressure:
 (20 °C)
 not determined
 (50 °C)
 not determined

Density: 1.500 g/cm³
 (20 °C)

Relative vapour density (air): No data available.

Solubility in water: soluble

Miscibility with water: miscible

Viscosity, kinematic: 6.0 mm²/s
 (20 °C)
 (40 °C)
 not determined

Flow time: Unspecified

10. Stability and Reactivity

Conditions to avoid:
 Protect from sunlight.

Substances to avoid:
 acids, light metals

Chemetall (now part of BASF Group) Safety data sheet
Date / Revised: 04.02.2020
Product: **GARDOSTRIP 5628 LA-1**

Version: 1.0

(30720621/SDS_GEN_AU/EN)

Date of print 16.06.2020

Corrosion to metals: Corrosive effect on metals.

Hazardous reactions:

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

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.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:

Of moderate toxicity after single ingestion.

Experimental/calculated data:

ATE (oral): 730 mg/kg (calculated)

Information on: potassium hydroxide

Experimental/calculated data:

LD50 rat (oral): 333 mg/kg (OECD Guideline 425)

Literature data.

Irritation

Assessment of irritating effects:

Highly corrosive! Damages skin and eyes. May cause severe damage to the eyes.

Respiratory/Skin sensitization

Assessment of sensitization:

Based on available Data, the classification criteria are not met.

Germ cell mutagenicity

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.

Developmental toxicity

Assessment of teratogenicity:

Based on available Data, the classification criteria are not met.

Specific target organ toxicity (single exposure):

Assessment of STOT single:

Based on available Data, the classification criteria are not met.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

Based on available Data, the classification criteria are not met.

Aspiration hazard

No aspiration hazard expected.

12. Ecological Information

Ecotoxicity

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.

Mobility

Assessment transport between environmental compartments:

No data available.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

No data available concerning biodegradation and elimination.

Elimination information:

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request or at the request of a detergent manufacturer.

Bioaccumulation potential

Bioaccumulation potential:

No data available.

13. Disposal Considerations

Observe national and local legal requirements.

Chemetall (now part of BASF Group) Safety data sheet
Date / Revised: 04.02.2020
Product: **GARDOSTRIP 5628 LA-1**

Version: 1.0

(30720621/SDS_GEN_AU/EN)

Date of print 16.06.2020

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

14. Transport Information

Domestic transport:

Packing group: II
ID number: UN 1814
Transport hazard class(es): 8
Proper shipping name: POTASSIUM HYDROXIDE SOLUTION

Further information

Hazchem Code:2R
IERG Number:37

Sea transport

IMDG

Packing group: II
ID number: UN 1814
Transport hazard class(es): 8
Marine pollutant: NO
Proper shipping name: POTASSIUM HYDROXIDE SOLUTION

Air transport

IATA/ICAO

Packing group: II
ID number: UN 1814
Transport hazard class(es): 8
Proper shipping name: POTASSIUM HYDROXIDE SOLUTION

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Registration status:

AICS, AU released / listed

Chemetall (now part of BASF Group) Safety data sheet
Date / Revised: 04.02.2020
Product: **GARDOSTRIP 5628 LA-1**

Version: 1.0

(30720621/SDS_GEN_AU/EN)

Date of print 16.06.2020

16. Other Information

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Disclosure log

Gardostrip 5628A, Gardostrip Activator

Product Description

Gardostrip 5628A is a paint stripping system to remove polyester powder paint from aluminium, zinc and steel surfaces. It is free from chlorinated hydrocarbons, phenols and cresols. Gardostrip 5628A may also remove other paints, but is specifically designed for polyester. The action of Gardostrip 5628A on polyester is to completely dissolve the resin, releasing the pigments into the solution for removal. Other paints will be lifted from the surface but not dissolved.

Features and Benefits

- Operates from ambient to 60°C
- Fast stripping times
- Methylene chloride free
- Safe on all metals
- Long solution life
- Low operating costs

Components

Gardostrip 5628A
Gardostrip Activator

Directions for Use

The paint stripper is used by immersion. Operating temperature is ambient to 60 deg.C (maximum). Agitation (by stirrer or circulation pump) is desirable to ensure uniformity but not essential.

Heating should be available to maintain performance as the solution becomes contaminated.

Paint residues may be removed by filter press or filter bags. Efficient filtration is considered essential for the product to perform cost-effectively.

Water must be excluded from the stripper tank. Work must enter dry.

Gardostrip 5628A is used to maintain the bath volume and Gardostrip Activator is added initially, and as required, to maintain chemical attack on polyester powdercoat. Gardostrip Activator is consumed during the stripping process, and additions are calculated according to a simple test procedure.

The solution remains non-etching towards aluminium as long as water content is minimised. Gardostrip Activator is a water-free alkali additive which does not cause water build-up in the solution. The alternative to Gardostrip Activator, Gardostrip 5628LA-1, is a water-containing alkali concentrate which may only be used under specific circumstances.

Application of the Paint Stripper:-

Bath Make Up:

Per 1000 litres of bath volume
1000 litres of Gardostrip 5628A
50 kg (35 litres) of Gardostrip Activator.

Gardostrip Activator is a corrosive liquid. Take care when adding to the tank.

Bath Operation:

Immersion time: 5-60 minutes. Time may be longer depending on the temperature and age of the bath.

Bath Temperature: 20-60°C (normally 40°C)

Operation at temperatures above 60 deg.C. will result in an unacceptable level of fumes, odours, and solution loss through evaporation.

Bath Control:

Alkalinity Titration or Titration Points: To be performed at every shift.

1. Take a 5 ml sample of the bath
2. Add 25 ml water and a few drops of phenolphthaleine indicator
The solution will turn pink.
3. Titrate with 0.1N acid until the pink colour disappears.

Mls = titration pointage.

A new solution will have a Pointage of 7-8

Pointage should be maintained at 7 - 15.

Add 2.5 litres (3.5kg) of Gardostrip Activator per 1000 litres to raise the pointage by 1.0

Material Handling

Equipment should be constructed of general purpose constructional steels
The bath may be agitated by means of a recirculating pump or propeller stirrer

Or the work can be moved in the solution using a rotating barrell, rocking cam, air ram or similar arrangement.

The circulating solution is abrasive, and can damage mechanical pump seals in time
Seal-less pumps, such as magnetic drive, or "vertical" pumps (with submerged impeller and body) are preferred. Mechanical seals which have a carbon face should not be used. Ceramic is preferred.

Consult Chemetall for equipment suitable for your process.

A filter (filter press or bag filter) is desirable to remove paint residues in order to minimise wastage of the product in the form of wet sludge. Filter cake in the order of 30-50% w/w solids should be achievable. Alternatively, the bath can be allowed to settle periodically, and the settled sludge transferred to filter bags to drain.

Repainting

Care must be taken to ensure that metal stripped in Gardostrip is properly prepared before repainting.

Aluminium:- The stripping process for aluminium should include cleaning and etching in a caustic soda solution to remove all paint residues and the remains of any previous chromate conversion coating. After rinsing, the aluminium must be reprocessed as for new aluminium.

Zinc (galvanised) :- Clean the stripped surface carefully by (for instance) water blasting. Ensure that the zinc coating is undamaged and not excessively darkened or powdery. Reprocess as for new zinc coated steel.

Steel:- Clean the stripped surface carefully by (for instance) water blasting. Protect from rusting by drying immediately and/or apply a suitable protective coating. Then clean and reprocess as for new steel.

The performance of any subsequently applied paint coating on a surface stripped with Gardostrip should be verified in all cases.

Packaging

Available in 25kg containers.

Safety, Transport and Storage Information

Please refer to the Safety Data Sheet.

Disclosure log

Issue Date: July 2018

The above data have been compiled to the best of our knowledge on the basis of thorough tests and with regard to the current state of our long practical experience. No liabilities or guarantee deriving from or in connection with this leaflet can be imputed to us. – Reproduction, in whole or in part, only with our express permission.