

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Chemetall
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Gardobond-Additive H 7271

Version: 3.0

Revision Date 30.07.2012

Print Date 19.02.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : Gardobond-Additive H 7271

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

Use of the Sub- : Additive for the rinsing of metal surfaces.
stance/Mixture

Recommended restrictions : None known.
on use

1.3 Details of the supplier of the safety data sheet

Company : Chemetall Ltd
Denbigh Road
Bletchley Milton Keynes MK1 1PB
Telephone : 01908 649333
Telefax : 01908 373939

Contact person product safety
Telephone : +49 (0)69 7165 3252
E-mail address : msds.de@chemetall.com

1.4 Emergency telephone number

Emergency telephone : 01908 649333
number

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2

H315: Causes skin irritation.

Eye irritation, Category 2

H319: Causes serious eye irritation.

Classification (67/548/EEC, 1999/45/EC)

Irritant

R36/38: Irritating to eyes and skin.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms :



Signal word :

Warning

Hazard statements :

H315
H319

Causes skin irritation.
Causes serious eye irritation.

Precautionary statements :

Prevention:
P262
P280

Do not get in eyes, on skin, or on clothing.
Wear protective gloves/ protective clothing/
eye protection/ face protection.

Response:
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.

P308 + P313

IF exposed or concerned: Get medical advice/ attention.

Disposal:
P501

Dispose of contents/ container to an approved incineration plant.

Labelling according to EC Directives (1999/45/EC)

Hazard pictograms :



Irritant

R-phrases :

R36/38

Irritating to eyes and skin.

S-phrases :

S26

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37
S60

Wear suitable gloves.
This material and its container must be disposed of as hazardous waste.

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2.3 Other hazards

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

SECTION 3: Composition/information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

Chemical nature : Aqueous solution of inorganic salts.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Ammonia	1336-21-6 215-647-6 01-2119488876-14-	C; R34 N; R50 Nota B	Skin Corr. 1B; H314 Aquatic Acute 1; H400	>= 0.25 - < 1
Ammonium hydrogendi- fluoride	1341-49-7 215-676-4 01-2119489180-38	T; R25 C; R34	Acute Tox. 3; H301 Skin Corr. 1B; H314	>= 0.1 - < 1

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

For the full text of the Notas mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Take off contaminated clothing and shoes immediately.
First-aid crew: Ensure self-protection.
Move out of dangerous area.

If inhaled : Provide fresh air.
If symptoms persist, call a physician.

In case of skin contact : Wash off immediately with plenty of water.

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- | | |
|------------------------|---|
| | Consult a physician. |
| In case of eye contact | : Rinse immediately with plenty of water, also under the eyelids.
Call a physician immediately. |
| If swallowed | : Rinse mouth with water.
Immediately give large quantities of water to drink.
Do NOT induce vomiting.
Call a physician immediately. |

4.2 Most important symptoms and effects, both acute and delayed

- | | |
|-------|--------------------|
| Risks | : irritant effects |
|-------|--------------------|

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|-----------|--|
| Treatment | : Treat symptomatically.
For specialist advice physicians should contact the Poisons Information Service. |
|-----------|--|

SECTION 5: Firefighting measures

5.1 Extinguishing media

- | | |
|--------------------------------|---|
| Suitable extinguishing media | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media | : High volume water jet |

5.2 Special hazards arising from the substance or mixture

- | | |
|---------------------------------------|--|
| Specific hazards during fire-fighting | : Hazardous decomposition products formed under fire conditions. |
|---------------------------------------|--|

5.3 Advice for firefighters

- | | |
|---|---|
| Special protective equipment for firefighters | : In the event of fire, wear self-contained breathing apparatus. |
| Further information | : Use water spray to cool unopened containers.
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. |

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- | | |
|----------------------|---------------------------------------|
| Personal precautions | : Wear personal protective equipment. |
|----------------------|---------------------------------------|

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6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Ensure adequate ventilation.
Soak up with liquid binder (sand, kieselguhr, acid binder, universal binder).
Sweep up and shovel into suitable containers for disposal.

6.4 Reference to other sections

See chapter 8 and 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.
Have eye wash bottle or eye rinse ready at the work place.
Avoid contact with skin and eyes.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in a place accessible by authorized persons only.
Store at room temperature in the original container.
Keep container tightly closed in a dry and well-ventilated place.

Further information on storage conditions : Avoid contact with amphoteric metals (e.g. aluminium, lead, zinc).

Advice on common storage : Do not store near acids.

Storage temperature : 0 - 35 °C

7.3 Specific end use(s)

Specific use(s) : Additive for the rinsing of metal surfaces.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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Components	CAS-No.	Value	Control parameters	Update	Basis
Ammonia	1336-21-6	TWA	20 ppm 14 mg/m3	2000-06-16	2000/39/EC
Further information	: Indicative				
	1336-21-6	STEL	50 ppm 36 mg/m3	2000-06-16	2000/39/EC
Further information	: Indicative				
	1336-21-6	TWA	25 ppm 18 mg/m3	2005-04-06	GB EH40
	1336-21-6	STEL	35 ppm 25 mg/m3	2005-04-06	GB EH40
Ammonium hydrogendifluoride	1341-49-7	TWA	2.5 mg/m3	2000-06-16	2000/39/EC
Further information	: Indicative				
	1341-49-7	TWA	2.5 mg/m3 Measured as fluoride	2005-04-06	GB EH40
Further information	: 2: Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used Measured as fluoride				
	1341-49-7	TWA	2.5 mg/m3 Fluorine	2007-08-01	GB EH40
Further information	: 2: Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used Fluorine				

PNEC
Ammonium hydrogendifluoride : Fresh water
Value: 1.3 mg/l

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Soil
Value: 22 mg/kg

8.2 Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Recommended Filter type:
B-P2
- Hand protection : butyl-rubber
Protective gloves complying with EN 374.
The exact break through time can be obtained from the protective glove producer and this has to be observed.
Protective gloves have to be replaced at the first sign of deterioration.
- Eye protection : Tightly fitting safety goggles
Eye protection (EN 166)
- Skin and body protection : Chemical resistant protective clothing according to DIN EN 13034 (Type 6)
- 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.
- Protective measures : Handle in accordance with good industrial hygiene and safety practice.
Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.

Environmental exposure controls

- General advice : Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

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Colour	: colourless
Odour	: slight stinging
Flash point	: not applicable
Ignition temperature	: not applicable
Lower explosion limit	: no explosion risk
pH	: 9.5 - 10.5 at 20 °C (undiluted)
Solidification temperature/range	: < 0 °C
Boiling point/boiling range	: no data available
Vapour pressure	: no data available
Density	: 0.98 - 1.02 g/cm ³ at 20 °C Method: DIN 51757
Water solubility	: completely miscible
Flow time	: ca. 15 sec. at 23 °C 4 mm Method: ISO 2431

9.2 Other information

Explosivity	: no explosion risk
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SECTION 10: Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

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10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Decomposes by reaction with strong acids.

10.4 Conditions to avoid

Conditions to avoid : Avoid contact with amphoteric metals (e.g. aluminium, lead, zinc).

10.5 Incompatible materials

Materials to avoid : Acids

10.6 Hazardous decomposition products

Risk of decomposition. : Hydrogen fluoride

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity : Acute toxicity estimate: 15,272 mg/kg
Method: Calculation method

Acute oral toxicity
Ammonium hydrogendi-
fluoride : LD50: 60 - 130 mg/kg
Species: rat

Skin corrosion/irritation

Skin irritation : Causes skin irritation.

Serious eye damage/eye irritation

Eye irritation : Causes serious eye irritation.

Respiratory or skin sensitization

Sensitisation : no data available

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SECTION 12: Ecological information

12.1 Toxicity

Ecotoxicology studies for the product are not available.

Toxicity to fish
Ammonia : LC50: 0.53 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)
CAS 7664-41-7

Ammonium hydrogendi-
fluoride : LC50: 422 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates
Ammonia : EC50: 24 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
CAS 7664-41-7

12.2 Persistence and degradability

Biodegradability : no data available

12.3 Bioaccumulative potential

Bioaccumulation : Bioaccumulation is unlikely.

12.4 Mobility in soil

Mobility : no data available

12.5 Results of PBT and vPvB assessment

This mixture does not contain substances considered to be persistent, bioaccumulating and toxic (PBT)., This mixture does not contain substances considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects

Additional ecological information : slightly water endangering
: Do not flush into surface water or sanitary sewer system.
Avoid subsoil penetration.

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

- | | |
|------------------------|---|
| Product | : Dispose of as hazardous waste in compliance with local and national regulations. |
| Contaminated packaging | : Dispose of as hazardous waste in compliance with local and national regulations. |
| Waste Code | : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities. |

SECTION 14: Transport information

ADR
Not dangerous goods

IATA
Not dangerous goods

IMDG
Not dangerous goods

RID
Not dangerous goods

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Candidate List of Substances of Very High Concern for Authorisation : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Water contaminating class (Germany) : WGK 1 slightly water endangering
VWWWS A4

Other regulations : 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.

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15.2 Chemical Safety Assessment

For the lead substance(s) in the mixture, there is no exposure scenario available.
For a mixture it is not mandatory to include an exposure scenario in the material safety data sheet.
The necessary safety - related information is stated in the first 16 sections.

SECTION 16: Other information

Full text of R-phrases referred to under sections 2 and 3

R25	Toxic if swallowed.
R34	Causes burns.
R36/38	Irritating to eyes and skin.
R50	Very toxic to aquatic organisms.

Full text of H-Statements referred to under sections 2 and 3.

H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.

Full text of Notas referred to under section 3

Nota B	Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different labelling since the hazards vary at different concentrations. In Annex I entries with Note B have a general designation of the following type: nitric acid%. In this case the manufacturer or any other person who markets such a substance in aqueous solution must state the percentage concentration of the solution on the label. Example: nitric acid 45 %. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis. The use of additional data (e.g. specific gravity, degrees Baumé) or descriptive phrases (e.g. fuming or glacial) is permissible.
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Further information

The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant rules and regulations concerning this product.