



SAFETY DATA SHEET
JANGRO PREMIUM LIMESCALE REMOVER
Compiled in Accordance with EU and GB REACH and CLP Regulations.

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

1.1. Product identifier

Product name	JANGRO PREMIUM LIMESCALE REMOVER
Product number	800-277-0146
Internal identification	BC035-75

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

Identified uses	Limescale remover.
Uses advised against	Not for Oral Consumption. Do Not Mix With Bleach.

1.3. Details of the supplier of the safety data sheet

Supplier	Jangro Ltd Jangro House Worsely Road, Farnworth Bolton, BL4 9LU Tel. 01204 795955
	Jangro (Europe) Ltd 6-9 Trinity Street, Dublin 2 D02 EY47 Ireland Tel.016177911

Contact person For content of safety data sheet:, enquiries@jangrohq.net

1.4. Emergency telephone number

Emergency telephone 01204 795 955 (Jangro)

National emergency telephone number In case of a medical emergency following exposure to a chemical call NHS Direct in England or Wales 0845 46 47 or NHS 24 in Scotland 08454 24 24 24

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.2. Label elements

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

JANGRO PREMIUM LIMESCALE REMOVER

CITRIC ACID ANHYDROUS	1-5%
CAS number: 77-92-9	EC number: 201-069-1
Classification	
Eye Irrit. 2 - H319	
D-GLUCOPYRANOSE, OLIGOMERIC, C8-10 GLYCOSIDES	1-5%
CAS number: 68515-73-1	EC number: 500-220-1
Classification	
Eye Dam. 1 - H318	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Provide eyewash station.
Inhalation	Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
Skin contact	Rinse immediately with plenty of water. Remove contaminated clothing. Get medical attention if irritation persists after washing.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist after washing. Show this Safety Data Sheet to the medical personnel.

4.2. Most important symptoms and effects, both acute and delayed

General information	Provide eyewash station.
Inhalation	Unlikely to be hazardous by inhalation because of the low vapour pressure of the product at ambient temperature. In combination with Bleach can produce Chlorine gas - Check for respiratory disorders.
Ingestion	Unlikely exposure route without abuse. Symptoms will include, Sickness, possible Irritation of GI Tract. A soapy taste may be reported.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	Prolonged or repeated exposure may cause the following adverse effects: Irritation and redness, followed by blurred vision. Corneal damage. Risk of serious damage to eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Ensure skin and eyes are well rinsed to neutral pH. Check Mouth for evidence of irritation. If mixed with bleach may produce Chlorine Gas, check for respiratory disorders.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire. Foam, carbon dioxide or dry powder.
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5.2. Special hazards arising from the substance or mixture

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Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8. Treat the spilled material according to the instructions in the clean-up section. Take care as floors and other surfaces may become slippery.

6.2. Environmental precautions

Environmental precautions Collect and dispose of spillage as indicated in Section 13. Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if safe to do so. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Provide adequate ventilation. Avoid spilling. Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid breathing vapour/spray. Do not mix with other household chemical products. Do not mix with Bleach.

Advice on general occupational hygiene Good personal hygiene procedures should be implemented. Do not eat, drink or smoke when using this product. Wash skin thoroughly after handling. Take off contaminated clothing and wash it before reuse. Use appropriate hand lotion to prevent defatting and cracking of skin.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Store at room temperature. Keep out of the reach of children.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

CITRIC ACID ANHYDROUS (CAS: 77-92-9)

DNEL

Available hazard data do not support the need for a DNEL to be established for other health effects.

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PNEC	<ul style="list-style-type: none"> - Fresh water; 0.44 mg/l - marine water; 0.044 mg/l - STP; >1000 mg/l - Sediment (Freshwater); 34.6 mg/kg - Sediment (Marinewater); 3.46 mg/kg - Soil; 33.1
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D-GLUCOPYRANOSE, OLIGOMERIC, C8-10 GLYCOSIDES (CAS: 68515-73-1)

DNEL	<p>Workers - Inhalation; Long term systemic effects: 420 mg/m³</p> <p>Workers - Dermal; Long term systemic effects: 595000 mg/kg/day</p> <p>General population - Inhalation; Long term systemic effects: 124 mg/m³</p> <p>General population - Dermal; Long term systemic effects: 357000 mg/kg</p> <p>General population - Oral; Long term systemic effects: 35.7 mg/kg</p>
PNEC	<ul style="list-style-type: none"> - Fresh water; 0.176 mg/l - marine water; 0.0176 mg/l - Intermittent release; 0.27 mg/l - STP; 560 mg/l - Sediment (Freshwater); 1.516 mg/l - Sediment (Marinewater); 0.152 mg/l

8.2. Exposure controls

Protective equipment



Personal protection

Data provided here is not a risk/COSHH assessment. It relates to the product as supplied and should be used in developing a risk/COSHH assessment.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Personal protective equipment that provides appropriate eye and face protection should be worn.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Polyvinyl chloride (PVC). Rubber (natural, latex). Neoprene. Nitrile rubber. Polyethylene. To protect hands from chemicals, wear gloves that are proven to be impervious to the chemical and resist degradation. A break through time of >60 minutes is suggested. Gloves should be inspected regularly for damage.

Other skin and body protection

Wear appropriate clothing to prevent repeated or prolonged skin contact. Use appropriate hand lotion to prevent defatting and cracking of skin.

Hygiene measures

Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Use appropriate skin cream to prevent drying of skin.

Respiratory protection

Respiratory protection not required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Clear Colourless.

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Odour	Perfumed.
Odour threshold	Not applicable.
pH	>2 - 2.5
Melting point	Not applicable.
Initial boiling point and range	Not determined but expected to be >90 Degrees C.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Evaporation factor	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Other flammability	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	~ 1.030
Bulk density	Not applicable.
Solubility(ies)	Soluble in water.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not applicable.
Viscosity	No information available.
Explosive properties	Not applicable
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Not applicable.
Comments	Information given is applicable to the product as supplied.

9.2. Other information

Other information Not relevant.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Under normal storage conditions this product is stable.

10.2. Chemical stability

Stability Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Mixing with Bleach based products will produce toxic Chlorine Gas.

10.4. Conditions to avoid

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Conditions to avoid Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid Avoid contact with Bleach. Avoid contact with alkalis.

10.6. Hazardous decomposition products

Hazardous decomposition products No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Information given is based on data of the components and of similar products.

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Not classified. Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage. Calculation method.

Respiratory sensitisation

Respiratory sensitisation Not sensitising. Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Not classified. Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Does not contain any substances known to be mutagenic.

Carcinogenicity

Carcinogenicity Does not contain any substances known to be carcinogenic.

Reproductive toxicity

Reproductive toxicity - fertility Does not contain any substances known to be toxic to reproduction.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

General information This product has low toxicity.

Inhalation The product is considered to be a low hazard under normal conditions of use. Note contact with Bleach may produce toxic Chlorine Gas.

Ingestion May cause irritation. Symptoms following overexposure may include the following: Stomach pain. Nausea, vomiting.

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Skin contact Skin irritation should not occur when used as recommended. Prolonged or repeated exposure may cause the following adverse effects: Irritation. Redness. Dryness and/or cracking. Mild dermatitis, allergic skin rash.

Eye contact Irritating to eyes. May cause serious eye damage. Severe irritation, burning, tearing and blurred vision. Corneal damage.

Toxicological information on ingredients.

D-GLUCOPYRANOSE, OLIGOMERIC, C8-10 GLYCOSIDES

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,001.0

Species Rat

ATE oral (mg/kg) 2,001.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,001.0

Species Rabbit

ATE dermal (mg/kg) 2,001.0

Skin sensitisation

Skin sensitisation Not sensitising. REACH dossier information.

Germ cell mutagenicity

Genotoxicity - in vitro REACH dossier information. Negative.

Genotoxicity - in vivo REACH dossier information. Negative.

SECTION 12: Ecological information

Ecotoxicity Not regarded as dangerous for the environment.

12.1. Toxicity

Toxicity Not considered toxic to fish.

Ecological information on ingredients.

D-GLUCOPYRANOSE, OLIGOMERIC, C8-10 GLYCOSIDES

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 100.81 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 101 mg/l, Daphnia magna

Acute toxicity - microorganisms EC₅₀, 6 hours: >560 mg/l,

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 1 mg/l, Daphnia magna

12.2. Persistence and degradability

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Persistence and degradability The surfactant(s) contained in this product complies(comply) with the biodegradability criteria as laid down in The Detergents Regulations (as amended).

Ecological information on ingredients.

D-GLUCOPYRANOSE, OLIGOMERIC, C8-10 GLYCOSIDES

Biodegradation Water - Degradation 100%: 28 days

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not applicable.

Ecological information on ingredients.

D-GLUCOPYRANOSE, OLIGOMERIC, C8-10 GLYCOSIDES

Partition coefficient log Pow: 1.72 REACH dossier information.

12.4. Mobility in soil

Mobility The product is water-soluble and may spread in water systems.

Ecological information on ingredients.

D-GLUCOPYRANOSE, OLIGOMERIC, C8-10 GLYCOSIDES

Henry's law constant 0 Pa m³/mol @ 25°C

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

D-GLUCOPYRANOSE, OLIGOMERIC, C8-10 GLYCOSIDES

Results of PBT and vPvB assessment No data available.

12.6. Other adverse effects

Other adverse effects None known.

Ecological information on ingredients.

D-GLUCOPYRANOSE, OLIGOMERIC, C8-10 GLYCOSIDES

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Do not discharge into drains or watercourses or onto the ground.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Normal use solutions are expected to be flushed to sewers. Reuse or recycle products wherever possible.

SECTION 14: Transport information

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General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

**Annex II of MARPOL 73/78
and the IBC Code**

SECTION 15: Regulatory information

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

National regulations GB (UK) CLP and REACH Regulations.
The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).
EH40/2005 Workplace exposure limits.

Guidance Workplace Exposure Limits EH40.
ECHA Guidance on the Application of the CLP Criteria.
ECHA Guidance on the compilation of safety data sheets.
COSHH Essentials.
Technical Guidance WM2: Hazardous Waste.

15.2. Chemical safety assessment

No information available.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet DNEL: Derived No Effect Level.
PBT: Persistent, Bioaccumulative and Toxic substance.
PNEC: Predicted No Effect Concentration.
MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.

Revision comments This is the first issue.

Revision date 09/03/2022

Revision 1

JANGRO PREMIUM LIMESCALE REMOVER

SDS number 22702

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