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MATERIAL SAFETY DATA SHEET

PROTEX DE-SCALER



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Revision No: 4

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

1.1. Product identifier

Product name: PROTEX DE-SCALER

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

Use of substance / mixture: Wet central heating system De-Scaler.

1.3. Details of the supplier of the safety data sheet

Company name: Excel Industries
Coolmine Industrial Estate
Clonsilla Rd
Dublin 15
Ireland

Tel: +353 18118701

Fax: +353 18118786

Email: sales@excel-industries.com

1.4. Emergency telephone number

Emergency tel: Emergency medical information:
8am-10pm (seven days)
Contact National Poisons Information Centre,
Beaumont Hospital, Dublin 9 DOV2NO, Ireland.
Telephone Number: +353 (0)1 809 2166

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Skin Corr. 1B: H314

Most important adverse effects: Causes severe skin burns and eye damage.

2.2. Label elements

Label elements:

Hazard statements: H314: Causes severe skin burns and eye damage.

Hazard pictograms: GHS05: Corrosion



[cont...]



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Signal words: Danger

Precautionary statements: P102: Keep out of reach of children.

P260: Do not breathe dust/fumes/gas/mist/vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water .

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Haz. ingredients (label): PHOSPHORIC ACID

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

ORTHOPHOSPHORIC ACID

EINECS	CAS	PBT / WEL	CLP Classification	Percent
231-633-2	7664-38-2	-	Skin Corr. 1B: H314	30-50%

ACID PHOSPHATE ESTER

609-691-9	39464-70-5	-	Skin Irrit. 2: H315; Eye Dam. 1: H318	1-10%
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BENZOTRIAZOL, AR-METHYL-, REACTION PRODUCT WITH FORMALDEHYDE AND DIETHANOLAMINE - REACH registered number(s): 2119982397-21-XXXX

-	-	-	Acute Tox. 4: H302; Eye Dam. 1: H318; Aquatic Chronic 3: H412; Skin Sens. 1: H317	<1%
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1,3-DIETHYL-2-THIOUREA - REACH registered number(s): 2119974271-37-XXXX

203-308-5	105-55-5	-	Acute Tox. 4: H302; Eye Dam. 1: H318; Skin Sens. 1: H317; STOT RE 1: H372; Aquatic Chronic 3: H412; Carc. 2: H351; STOT SE 3: H335; Acute Tox. 4: H312	<1%
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ALCOHOLS, C12-14 (EVEN NUMBERED), ETHOXYLATED (CAS: 68439-50-9)

932-106-6	68439-50-9	-	Eye Dam. 1: H318; Aquatic Acute 1: H400	<1%
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Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin.

[cont...]



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Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

Ingestion: Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

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

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Corrosive. In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Notify the police and fire brigade immediately. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective



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clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.
Do not handle in a confined space. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

ORTHOPHOSPHORIC ACID...100%

Workplace exposure limits:

Respirable dust:

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	1 mg/m ³	2 mg/m ³	-	-

DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Impermeable gloves.

Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand.

[cont...]



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Skin protection: Impermeable protective clothing.

Environmental: The floor of the storage room must be impermeable to prevent the escape of liquids.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Colourless

Odour: Characteristic odour

Evaporation rate: No data available.

Oxidising: No data available.

Solubility in water: Miscible

Viscosity: Non-viscous

Viscosity test method: Kinematic viscosity in 10⁻⁶ m²/s at 40°C (ISO 3104/3105)

Boiling point/range°C: 100

Melting point/range°C: No data available.

Flammability limits %: lower: No data available.

upper: No data available.

Flash point°C: >93

Part.coeff. n-octanol/water: No data available.

Autoflammability°C: No data available.

Vapour pressure: No data available.

Relative density: 1.0

pH: <2

VOC g/l: No data available.

9.2. Other information

Other information: Not applicable.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.



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Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

ORTHOPHOSPHORIC ACID...100%

ORL	RAT	LD50	1530	mg/kg
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Relevant hazards for product:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations



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13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: UN1760

14.2. UN proper shipping name

Shipping name: CORROSIVE LIQUID, N.O.S.

14.3. Transport hazard class(es)

Transport class: 8

14.4. Packing group

Packing group: II

14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: E

Transport category: 2

Section 15: Regulatory information

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

Specific regulations: Safety, Health and Welfare at Work Act 2005 (as amended). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2015 (SI 2015 No. 288) (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 2015/830 (as amended).

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.



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Section 16: Other information

Other information

Other information: European Standards Referenced:

I.S. EN 1146:2005 - Respiratory Protective Devices - Self-contained Open-circuit
Compressed Air Breathing Apparatus Incorporating A Hood For Escape - Requirements,
Testing, Marking
I.S. EN 374-1:2016 Protective Gloves Against Chemicals And Micro-organisms
I.S. EN 166:2002 - Personal Eye-protection - Specifications.
BS EN 464-1:1994 Protective Clothing For Use Against Liquid And Gaseous Chemicals,
Including Aerosols And Solid Particles - Test Method: Determination Of Leak Tightness
Of Gas Tight Suits (internal Pressure Test)

Phrases used in s.2 and s.3: H302: Harmful if swallowed.

H312: Harmful in contact with skin.

H314: Causes severe skin burns and eye damage.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

H351: Suspected of causing cancer.

H372: Causes damage to organs through prolonged or repeated exposure.

H400: Very toxic to aquatic life.

H412: Harmful to aquatic life with long lasting effects.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.