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**SAFETY DATA SHEET**

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

- Product Name: Aval Platinum Descaler
- UFI: M200-U0CW-6000-QP93
- Synonyms: No information available

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

- Use of the substance/mixture: For milkstone removal and prevention in milking machines and bulk tanks.

Identified uses

- No uses advised against are identified.

**1.3 Details of the supplier of the safety data sheet**

- Name of Supplier: THE CARBON GROUP
- Address of Supplier: RINGASKIDDY  
CORK  
Ireland
- Telephone: +353 21 4378988
- Responsible Person: Quality@carbon.ie
- Email: Quality@carbon.ie

**1.4 Emergency telephone number**

- Emergency Telephone: The National Poisons Information Centre (NPIC)  
Public: +353 (0) 1 809 2166 (7 days a week, 8am- 10pm)  
Healthcare professionals: +353 (0) 1 809 2566 (24 h service)  
See also section 4 "First aid measures"  
Company Number: +353 21 4378988 (5 days a week 8am - 5pm)

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**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

- CLP: Met. Corr. 1, Skin Corr. 1A

**2.2 Label elements****GHS05**

- Signal Word: Danger

**2.2.1 Hazard statements**

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**SECTION 2: Hazards identification (....)**

H314 - Causes severe skin burns and eye damage.

H290 - May be corrosive to metals.

**2.2.2 Precautionary statements**

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

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

P310 - Immediately call a POISON CENTER or doctor/physician.

P321 - Specific treatment (see

P234 - Keep only in original packaging.

**2.3 Other hazards**

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**SECTION 3: Composition/information on ingredients****3.2 Mixtures****3.2.1 phosphoric acid ... %, orthophosphoric acid ... %**

CAS Number: 7664-38-2

EC Number: 231-633-2

Concentration: 18.9%

Specific Concentration Limits: Skin Corr. 1B; H314:  $C \geq 25 \%$   
Skin Irrit. 2; H315:  $10 \% \leq C < 25 \%$   
Eye Irrit. 2; H319:  $10 \% \leq C < 25 \%$

M factor: Not available

Acute toxicity estimate: Not available

Categories: Eye Dam. 1, Eye Irrit. 2A

REACH Registration Number: 01-2119485924-24-0009

Symbols: GHS05

H Statements: H314

**3.2.2 nitric acid ...% [ $C \leq 70 \%$ ]**

CAS Number: 7697-37-2

EC Number: 231-714-2

Concentration: 17.8%

Specific Concentration Limits: Inhalation: ATE = 2.65 mg/L (Vapours)  
Ox. Liq. 3; H272:  $C \geq 65 \%$   
Skin Corr. 1A; H314:  $C \geq 20 \%$   
Skin Corr. 1B; H314:  $5 \% \leq C < 20 \%$

M factor: Not available

Acute toxicity estimate: Not available

Categories: Ox. Liq. 3, Skin Corr. 1A

REACH Registration Number: 01-2119487297-23-0027

Symbols: GHS03;GHS06;GHS05

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**SECTION 3: Composition/information on ingredients (....)**

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H Statements:

H272;H331;H314;EUH071

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**SECTION 4: First aid measures****4.1 Description of first aid measures**

## General information

- Provide general first aid, rest, warmth and fresh air.
- As a general rule, in case of doubt or if symptoms persist, always call a doctor.
- Seek medical attention for all burns and eye injuries, regardless how minor they may seem.
- First aid personnel must be aware of own risk during rescue.

**4.1.1 Inhalation**

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

Keep warm and at rest

Obtain immediate medical attention

If breathing is difficult, oxygen should be given by a trained person

If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**4.1.2 Ingestion**

If the product is ingested, seek medical attention immediately.

Do NOT induce vomiting.

Never give anything by mouth to an unconscious person

Seek immediate medical attention

Provided patient is conscious wash out mouth with water and give half a pint of water to drink.

**4.1.3 Contact with skin**

If this product contacts the skin, immediately flush the affected area with plenty of clean running water for at least fifteen (15) minutes.

Remove contaminated clothing.

Seek immediate medical attention

Continue to rinse for at least 15 minutes.

**4.1.4 Contact with eyes**

Remove affected person from source of contamination.

Avoid contaminating unaffected eye.

Remove contact lenses if present and easy to do so.

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally.

Get immediate medical advice/attention.

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

## General information

- The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
- Causes severe skin burns and eye damage.

**4.2.1 Inhalation**

**SECTION 4: First aid measures (....)**

Corrosive

Inhalation of vapors can cause coughing, inflammation of the nose, throat and upper respiratory tract, and pulmonary edema.

Fluid build up on the lung (pulmonary odema) may occur up to 48 hours after exposure and could prove fatal.

**4.2.2 Ingestion**

May cause burns in mucous membranes, throat, oesophagus and stomach.

Danger of gastric perforation.

Swallowing concentrated chemical may cause severe internal injury.

**4.2.3 Contact with skin**

Corrosive

Can cause redness, pain, and severe skin burns.

**4.2.4 Contact with eyes**

Contact with liquid or vapour may cause severe burns which could lead to permanent / total loss of vision.

Causes severe eye burns.

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

Notes to the physician

- Treat symptomatically
  - Following exposure the patient should be kept under medical review ffor at least 48 hours.
  - May cause pulmonary oedema
  - If swallowed, gastric irrigation may be required.
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**SECTION 5: Firefighting measures****5.1 Extinguishing media**

Extinguishing media

- Use fire-extinguishing media appropriate for surrounding materials.
- Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

- High volume water jet.

**5.2 Special hazards arising from the substance or mixture**

Hazardous combustion products

- Very corrosive gases/vapours/fumes including nitric acid (HNO<sub>3</sub>), acid mist, nitrous gases (NO<sub>x</sub>).
- Oxides of phosphorus.

Unusual fire & explosion hazards

- Oxidizing agent; may ignite oxidizable materials.
- Contributes to combustion of other materials.
- Flammable/explosive hydrogen gas may be formed upon contact of this product with metals.

Specific hazards

- During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
- Corrosive, avoid contact.

**SECTION 5: Firefighting measures (....)****5.3 Advice for firefighters**

Special fire fighting procedures

- Avoid breathing fire vapours.
- Keep up-wind to avoid fumes.
- Fight advanced or massive fires from safe distance or protected location.
- Ventilate closed spaces before entering them.
- Water spray should be used to cool containers.

Protective equipment for firefighters

- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
  - Clothing for firefighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions

- Floors may become slippery, avoid falls.
- Wear protective clothing as per section 8
- Avoid inhalation of vapours and contact with skin and eyes.
- Ensure adequate ventilation
- In case of inadequate ventilation wear respiratory protection.
- Do not eat, drink or smoke when using this product.
- Eliminate all sources of ignition.
- Wash hands and working surfaces thoroughly after handling.
- Follow safe handling advice and personal protective equipment recommendations for normal use of product.
- Read and follow manufacturer's recommendations.
- Do not touch or walk through spilled material.
- If necessary evacuate surrounding areas.
- Keep unnecessary and unprotected personnel from entering.
- Do not wear contact lenses when working with this material

For emergency responders

- Follow safe handling advice and personal protective equipment recommendations for normal use of product.

**6.2 Environmental precautions**

Environmental precautions

- Keep out of drains, municipal sewers, open bodies of water and water course.
- Disposal should be in accordance with local, state or national legislation
- Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.
- Prevent further leakage or spillage if safe to do so.

**6.3 Methods and material for containment and cleaning up**

Spill clean up methods

- Restrict non-essential personnel from the area.
- Absorb spillage with non-combustible, inert absorbent material.

**SECTION 6: Accidental release measures (....)**

- Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labelled container.
- Neutralizing agent

**6.4 Reference to other sections**

- See Section 1 for emergency contact. See Section 8 for personal protection equipment (PPE). See Section 13 for waste disposal
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**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

## Handling

- Wear protective clothing as per section 8
- Avoid spilling, skin and eye contact.
- Eye and skin protection should be worn for handling small quantities.
- Where there is a risk of splashes or leakage full protective clothing should be worn.
- Provide adequate ventilation.
- Do not wear contact lenses when working with this material
- Avoid inhalation of vapours and mists.
- Avoid prolonged or repeated contact.
- Do NOT ingest.
- Wash thoroughly after handling.
- Do not mix with any other products
- Ensure materials used in handling are compatible with the product.

**7.2 Conditions for safe storage, including any incompatibilities**

## Storage precautions

- Keep away from other chemicals.
- Store in tightly closed original container in a cool, dry and well-ventilated place.
- Keep separate from food, feedstuffs, fertilisers and other sensitive material.
- Keep locked up and out of reach of children

## Storage class

- Oxidiser storage.
- Keep away from other chemicals.

**7.3 Specific end use(s)**

## Specific end use(s)

- The identified uses for this product are detailed in Section 1.2.

## Usage description

- Use only according to directions.
  - Replace and tighten cap after use.
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**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****8.1.1 phosphoric acid ... %, orthophosphoric acid ... %**

WEL (long term): 1 mg/m<sup>3</sup> (IE)

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**SECTION 8: Exposure controls/personal protection (....)**

WEL (short term): 2 mg/m<sup>3</sup> (IE)

**8.1.2 nitric acid ...% [C ≤ 70 %]**

WEL (long term): 2.6 mg/m<sup>3</sup> (IE)

Ingredient comments

Workplace Exposure Limits Guidance Note EH40/2005.

Ireland, Occupational Exposure Limits 2020.

**8.2 Exposure controls**

Protective equipment



**Boots**



**Gloves**



**Goggles**

Engineering measures

- Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.
- Use in a chemical fume hood to keep airborne levels below recommended exposure limits.
- Ventilation should be corrosion proof.
- Do not use in unventilated spaces.

Respiratory equipment

- Where risk assessment shows air-purifying respirators are appropriate a full face respirator conforming to EN 143 should be used, and suitable respirator cartridges as a backup to engineering controls.
- Combination filtering device (DIN EN 141).
- Use respiratory equipment with gas filter, type A2.

Hand protection

- Selection of the glove material depends on consideration of the penetration times, rates of diffusion and degradation, and concentration specific to the workplace. (EU Directive 89/686/EEC).
- Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374) is recommended.
- Gloves must be inspected prior to use.
- Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.
- Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
- Butyl rubber gloves are recommended.
- Butyl rubber gloves are recommended.
- Minimum layer thickness: 0.7 mm.
- Minimum breakthrough time / gloves: 480 min.

Eye protection

- Wear safety goggles or face shield to prevent any possibility of eye contact.
- Use equipment for eye protection tested and approved under appropriate government standards such as EN 166(EU).

Other protection

- Wear appropriate clothing to prevent any possibility of skin contact.
- Select appropriate protective clothing based on chemical resistance data and an assessment of local exposure potential.

**SECTION 8: Exposure controls/personal protection (....)**

- Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist.
- The selected clothing must satisfy the European norm standard EN 943.

## Hygiene measures

- Wash contaminated clothing before reuse.
- Wash promptly if skin becomes wet or contaminated.
- Wash hands at the end of each work shift and before eating, smoking and using the toilet
- Handle in accordance with good industrial hygiene and safety procedures.

## Process conditions

- Ensure that eye flushing systems and safety showers are located close by in the work place.
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**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

- Physical state: Liquid
- Colour: Clear. Colourless.
- Odour: No information available
- Melting point/Range: Not available
- Boiling Point/Range: Not available
- Flammability: Not applicable
- pH:  $\leq 2$
- Solubility in water: Completely soluble in water. Aqueous solutions are acidic.
- Density: 1.26 to 1.28 g/cm<sup>3</sup>
- Bulk Density: 1.37 - 1.42 kg/l.
- Flashpoint:  $>93^{\circ}\text{C}$
- Vapour Density: 2
- Oxidising Properties: The product does not meet the criteria to be classified as oxidising.
- Explosive Properties: Non-explosive

**9.2 Other information**

- Molecular Weight: Not applicable as the product is a mixture.
  - Volatile organic compound : No information available as testing has not been completed.
  - Other information : None
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**SECTION 10: Stability and reactivity****10.1 Reactivity**

- Reacts with alkalis and generates heat.
- Reacts with base metals forming flammable hydrogen.
- May cause or intensify fire; oxidiser.
- Potential for exothermic hazard.

**10.2 Chemical stability**

## Stability

- Stable under normal temperature conditions and recommended use.
-



**SECTION 10: Stability and reactivity (....)****10.3 Possibility of hazardous reactions**

Hazardous reactions

- For information on hazardous reaction see section 10.1.

Hazardous polymerisation

- Unknown

Polymerisation description

- Unknown

**10.4 Conditions to avoid**

- Avoid heat, flames and other sources of ignition.
- Strong oxidising substances.

**10.5 Incompatible materials**

Materials to avoid

- Do not mix with any other products
- Strong oxidising substances.
- Avoid contact with alkalis (strong bases)
- Base metal

**10.6 Hazardous decomposition products**

- Fire or high temperatures create: Nitric acid (HNO<sub>3</sub>). Nitrous gases (NO<sub>x</sub>).
  - In oxidation of most organic materials, concentrated nitric acid will produce dense clouds of red or brown oxides of nitrogen.
  - Phosphorous oxides.
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**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****11.1.1 Acute toxicity**

Estimated LD<sub>50</sub> (oral) (ATE) : >2000 mg/kg

Estimated LD<sub>50</sub> (dermal) (ATE) : >4000 mg/kg

Estimated LD<sub>50</sub> (inhalational) (ATE) : >20 mg/l/4hr (gas/vapour)

**11.1.2 Skin corrosion/irritation**

The product is not classified as a skin corrosion/irritation hazard.

**11.1.3 Serious eye damage/irritation**

Causes serious eye damage.

**11.1.4 Respiratory or skin sensitisation**

The product is not classified as a respiratory hazard.

The product is not classified as a skin sensitisation hazard.

**11.1.5 Germ cell mutagenicity**

The product is not classified as a mutagen.

**11.1.6 Carcinogenicity**

**SECTION 11: Toxicological information (....)**

No evidence of carcinogenic effects

**11.1.7 Reproductive toxicity**

The product is not classified as a reproductive hazard.

**11.1.8 STOT (specific target organ toxicity) - single exposure**

The product is classified as a single exposure specific target organ toxin.

**11.1.9 STOT (specific target organ toxicity) - repeated exposure**

The product is not classified as a repeat exposure specific target organ toxin.

**11.1.10 Aspiration hazard**

The product is not classified as an aspiration hazard.

**11.2 Information on other hazards****Inhalation**

Corrosive! Inhalation of vapors can cause coughing, inflammation of the nose, throat and upper respiratory tract, and pulmonary edema. Fluid build up on the lung (pulmonary odema) may occur up to 48 hours after exposure and could prove fatal.

**Ingestion**

May cause burns in mucous membranes, throat, oesophagus and stomach. Danger of gastric perforation. Swallowing concentrated chemical may cause severe internal injury.

**Skin contact**

Corrosive! Can cause severe skin burns. Contact can also cause redness and pain.

**Eye contact**

Contact with liquid or vapour may cause severe burns which could lead to permanent / total loss of vision. Causes severe eye burns.

**Waste management**

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

**Routes of entry**

Eyes, skin, ingestion or inhalation.

**Target organs**

Eyes, skin, digestive system, respiratory system.

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**SECTION 12: Ecological information****12.1 Toxicity****12.1.1 phosphoric acid ... %, orthophosphoric acid ... %**

IC<sub>50</sub> (algae): Unknown mg/l (72 hr)

EC<sub>50</sub> (daphnia): Unknown mg/l (48 hr)

**12.1.2 nitric acid ...% [C ≤ 70 %]**

**SECTION 12: Ecological information (....)**

LC<sub>50</sub> (fish): Unknown mg/l (96 hr)

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment due to pH shift.

Eco toxicological information

The product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.

There are no data on the degradability of this product.

**12.2 Persistence and degradability**

Degradability

- There are no data on the degradability of this product.

Biological oxygen demand

- No information available as testing has not been completed.

Chemical oxygen demand

- No information available as testing has not been completed.

**12.3 Bioaccumulative potential**

Bioaccumulative potential

- The product is not bioaccumulating.

Bioaccumulation factor

- No information available as testing has not been completed.

Partition coefficient; n-Octanol/Water

- No information available as testing has not been completed.

**12.4 Mobility in soil**

- miscible with water

**12.5 Results of PBT and vPvB assessment**

- The product does not contain any PBT or vPvB substances.

**12.6 Endocrine disrupting properties**

- The product does not contain any substances with endocrine disrupting properties at a concentration above or equal to 0.1%.

**12.7 Other adverse effects**

Name: Phosphoric acid 100%

Acute toxicity (Fish): LC<sub>50</sub> 96 Hours 138.00ppm Freshwater Fish

Acute toxicity (Aquatic invertebrates): EC<sub>50</sub> 48 Hours >100.00ppm Daphnia magna

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**SECTION 13: Disposal considerations**

Waste management

**When handling waste, consideration should be made to the safety precautions applying to handling of the product.**

**13.1 Waste treatment methods**

Disposal methods

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**SECTION 13: Disposal considerations (....)**

- Disposal should be in accordance with local, state or national legislation
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**SECTION 14: Transport information****Corrosive****14.1 UN number or ID number**

- UN No.: 3264
- ADR UN No.: 3264
- IMDG UN No.: 3264
- ICAO UN No.: 3264

**14.2 UN proper shipping name**

- Proper Shipping Name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

**14.3 Transport hazard class(es)**

- Hazard Class: 8
- ADR Hazard Class: 8
- IMDG Hazard Class: 8
- ICAO Hazard Class: 8

**14.4 Packing group**

- Packing Group: I
- ADR Packing Group: I
- IMDG Packing Group: I
- ICAO Packing Group: I

**14.5 Environmental hazards**

- ADR: No
- IMDG: No
- ICAO: No

**14.6 Special precautions for user**

- Contains: Nitric acid ...% [C ≤ 70 %]
- EMS: F-A, S-B.
- Emergency action code: A3 A803
- Hazard no. (ADR): 80
- Tunnel Code: (E)

**14.7 Maritime transport in bulk according to IMO instruments**

- Not applicable

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

## EU legislation

- This Safety Data Sheet is provided in compliance with the EC Regulations 1907/2006, 1272/2008, 2015/830 and 2020/878
- Refer to current CLP Regulations
- Refer to current ADR Regulations

## Approved code of practice

- 2021 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2021) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001-2019)
- Workplace Exposure Limits Guidance Note EH40/2005.

**15.2 Chemical safety assessment**

- No chemical safety assessment has been carried out.
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**SECTION 16: Other information**

Text not given with phrase codes where they are used elsewhere in this safety data sheet:-

**EUH071: Corrosive to the respiratory tract. H272: May intensify fire; oxidiser. H314: Causes severe skin burns and eye damage. H331: Toxic if inhaled.**

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