

**1 IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY**

**1.1 Product identifier**

Product Name: **Descaler**

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

**Descaler** - For professional use only

**Uses advised against:**

Uses other than those identified are not recommended

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

Company Name: Gannon Chemicals Ltd  
Ballindine, Claremorris  
Co. Mayo, Ireland  
Email address of SDS author: paul@gannonchemicals.ie  
Emergency Phone Number: 094 9364011 DAY (Mon – Fri 9am to 5.30pm)

**2 HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

*Classification according to Regulation (EC) No 1272/2008*

Eye Damage (Category 1), H318

Skin irritation (Category 2), H315

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

*Classification according to EU Directives 67/548/EEC or 1999/45/EC*

Xi Irritant R36

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

**2.2 Label elements**

*Labelling according Regulation (EC) No 1272/2008*

Pictogram



Signal word **Danger**

**Hazard statement(s)**

H318 - Causes serious eye damage.

H315 Causes skin irritation

**Precautionary statement(s)**

P264 Wash contaminated skin thoroughly after handling

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

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

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.

Supplemental Hazard **None**

Labelling according Regulation 67/548/EEC or 1999/45/EC

Xi - Irritant

**Risk phrases:**

R36 - Irritating to eyes.

R38 - Irritating to skin.

**Safety phrases:**

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Further indications on the label:**

Rinse and dry hands after use. For prolonged contact, protection for the skin may be necessary.

R36 - Irritating to eyes.

**2.3 Other hazards**

No other hazards known. The product does not meet the criteria for PBT or vPvB in accordance with Regulation (EC) No 1907/2006, Annex XIII.

**3 COMPOSITION / INFORMATION ON INGREDIENTS**

**3.2 Mixtures**

Product/Ingredient Name	CAS No.	Weight %	Classification 67/548/EEC	Regulation (EC) No 1272/2008 [CLP]
Phosphoric Acid	7664-38-2	10 – 25	C: R34	Skin Irrit. 2: 10% ≤ C < 25% Eye Irrit. 2A: 10% ≤ C < 25% Skin Corr. 1B: C ≥ 25%
Methanesulphonic Acid	75-75-2	5 - 10	C: R34	Skin Corr. 1B H314 Acute Tox. 4 (oral) H312 Acute Tox. 4 (dermal) H302
Isotridecanol Ethoxylated(>5-20 Eo)	69011-36-5	1 - 5	Xn; R22 Xi; R41	Acute tox.: Cat. 4 (oral) H302 Eye Dam. 1 - H318

**4 FIRST AID MEASURES**

**4.1 Description of first aid measures**

- |       |                                    |   |
|-------|------------------------------------|---|
| 4.1.1 | General Information                | Immediately remove contaminated clothing.   |
| 4.1.2 | Following Inhalation               | Keep patient calm, remove to fresh air, and seek medical attention.   |
| 4.1.3 | following skin contact             | Wash thoroughly with soap and water.  |
| 4.1.4 | Following Eye Contact              | Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. |
| 4.1.5 | Following Ingestion                | Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.                               |
| 4.1.6 | Self-protection of the first aider |   |

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

Symptoms: Eye irritation, skin irritation

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

**5 FIRE FIGHTING MEASURES**

**5.1 Extinguishing media:**

Not flammable. In case of fire use extinguishing media (Carbon dioxide. Dry powder. Water spray jet), appropriate to surrounding conditions. Fight larger fires with water spray jet or alcohol-resistant foam.

## 5.2 Special hazards arising from the substance or mixture

No special hazards known. However as smoke from fires is irritating. Take precautions to protect personnel from exposure.

## 5.3 Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

## 5.4 Additional information

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

# 6 ACCIDENTAL RELEASE MEASURES

## 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Information regarding personal protective measures see, chapter 8.

## 6.2 Environmental precautions

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

## 6.3 Methods and material for containment and cleaning up

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

## 6.4 Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

# 7 HANDLING AND STORAGE

7.1	Precautions for safe handling	Ensure there is sufficient ventilation of the area.
7.2	Conditions for safe storage, including any incompatibilities	Store at normal room temperature and keep container tightly closed. Keep out of reach of children. No special precautions necessary for protection against fire and explosion. Store away from strong acids.
7.3	Precautions for safe handling	For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

# 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

## 8.1. Control parameters

## 8.2. Exposure controls

Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

### Hand protection:

Chemical resistant protective gloves (EN 374)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): nitrile rubber (NBR) - 0.4 mm coating thickness.

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Manufacturer's directions for use should be observed because of great diversity of types.

### Eye protection:

Tightly fitting safety goggles (cage goggles) (e.g. EN 166) and face shield.

**Body protection:**

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

**General safety and hygiene measures**

Wearing of closed work clothing is recommended. Handle in accordance with good industrial hygiene and safety practice.

<b>9</b>	<b>PHYSICAL AND CHEMICAL PROPERTIES</b>
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**9.1. Information on basic physical and chemical properties**

(a)	Form	Liquid
(b)	Colour	Blue
(c)	Odour	Faint
(d)	pH value(1% solution)	2.1
(e)	Melting point/range (°C):	Not Determined
(f)	Initial boiling point/range (°C):	Not Determined
(g)	Decomposition temperature (°C)	Not Determined
(h)	Flash point (°C):	Not Determined
(i)	Ignition temperature (°C)	Not Determined
(j)	Vapour pressure (hPa) at ...°C)	Not Determined
(k)	Vapour density (air=1)	Not Determined
(l)	Density (g/cm <sup>3</sup> ) at 20°C	1.09
(m)	Bulk density (kg/m <sup>3</sup> )	Not Determined
(n)	Water solubility (20°C in g/l)	Completely
(o)	Solubility(ies):	Not Determined
(p)	Partition coefficient	Not Determined
(q)	Viscosity, dynamic (mPa s):	Not Determined

**9.2 Other information**

Incompatible with strong bases

<b>10</b>	<b>STABILITY AND REACTIVITY</b>
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**10.1 Reactivity**

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

**10.2 Chemical stability**

The product is stable if stored and handled as prescribed/indicated.

**10.3 Possibility of hazardous reactions**

No hazardous reactions when stored and handled according to instructions.

**10.4 Conditions to avoid**

See MSDS section 7 - Handling and storage.

**10.5 Incompatible materials**

Substances to avoid: Halogens, Acids, Reactive Chemicals

**10.6 Hazardous decomposition products**

No hazardous decomposition products known.

**11 TOXICOLOGICAL INFORMATION**

**11.2.2 Mixtures**

No test data is available on the mixture.  
Substance data, where relevant and available, are listed below

Substance	Acute toxicity	Skin corrosion/irritation	Serious eye damage/eye irritation	Respiratory or skin sensitisation
Phosphoric Acid	Virtually nontoxic after a single skin contact. Of moderate toxicity after single ingestion.	Corrosive! Damages skin	Corrosive! Damages eyes.	As the substance is corrosive, conducting sensitization studies is not feasible.
Methanesulphonic Acid	LD50 rat (oral): 649 mg/kg	Skin corrosion/irritation rabbit: Corrosive.	Serious eye damage/irritation : irreversible damage	Skin sensitizing effects were not observed in animal studies.
Isotridecanol Ethoxylated(>5-20 Eo)	Experimental/calculated data: LD50 rat (oral): > 300 - 2,000 mg/kg	Experimental/calculated data: Skin corrosion/irritation rabbit: non-irritant	Serious eye damage/irritation rabbit: irreversible damage	Experimental/calculated data: Guinea pig maximization test guinea pig: Non-sensitizing

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**12 ECOLOGICAL INFORMATION**

Substance	Toxicity	Persistence and Degradability	Bioaccumulative potential	Mobility in soil
Phosphoric Acid	Harmful to aquatic life in very low concentrations due to pH change. 96 hr. LC50 Mosquito Fish: 138 mg/L: Practically nontoxic.	Inorganic substance, therefore biodegradation testing is not applicable.	Accumulation in organisms is not to be expected.	
Methanesulphonic Acid	LC50 (96 h) 10 - 100 mg/l, Oncorhynchus mykiss EC50 (48 h) 10 - 100 mg/l, Daphnia magna EC50 (72 h) 10 - 100 mg/l (growth rate)	Readily biodegradable (according to OECD criteria)	Significant accumulation in organisms is not to be expected	No Data Available

Isotridecanol Ethoxylated(>5-20 Eo)	Toxicity to fish: LC50 (96 h) 1 - 10 mg/l, Leuciscus idus EC50 (48 h) 1 - 10 mg/l EC50 (72 h) 1 - 10 mg/l	Elimination information: >= 90 % Bismuth-active substance. Readily biodegradable	Accumulation in organisms is not to be expected.	The substance will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is possible.
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#### Results of PBT and vPvB assessment

The product does not fulfil the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative).

### 13 DISPOSAL

This product does not contain any prescribed substance under the Environmental Protection Act (Prescribed Processes and Substances) Regulations 1991 and is not classified as special waste under the Control of Substances (Special Waste) Regulations 1996, but is classified as controlled waste under the Environmental Protection Act 1990. For small quantities, dilute with water to at least 2.5% w/v (25 g/litre) and pour down a wastewater drain (foul sewer). Rinse out containers at least twice and recycle if facilities exist or dispose of as commercial waste. For larger quantities dispose of safely as commercial waste.

#### Empty packaging

Dispose of observing national or local regulations.

#### Suitable cleaning agents:

Water, if necessary with cleaning agent.

### 14 TRANSPORT INFORMATION

#### ADR, RID, ADN, IMO/IMDG, ICAO/IATA



14.1 UN number: 1805

#### 14.2 UN proper shipping name:

Phosphoric Acid, Solution

#### 14.3 Transport hazard class(es):

Class: 8

Label(s): 8

14.4 Packing group: III

#### 14.5 Environmental hazards:

Environmentally hazardous: No

Marine pollutant: No

14.6 Special precautions for user: None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: The product is not transported in bulk tankers.

#### Other relevant information:

##### ADR

Classification code: C1

Tunnel restriction code: E

Hazard identification number: 80

IMO/IMDG

EmS:

F-A, S-B

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** The product is not transported in bulk tankers.

<b>15</b>	<b>REGULATORY INFORMATION</b>
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**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Authorisations or restrictions (Regulation (EC) No 1907/2006, Title VII respectively Title VIII): Not applicable.

**Ingredients according to EC Detergents Regulation 648/2004**

Non-ionic surfactants	1 - 5%
Phosphates	5 - 15%

**15.2 Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out

<b>16</b>	<b>OTHER INFORMATION</b>
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This information is based on our present state of knowledge. It should not therefore be construed as guaranteeing specific properties of the products described or their suitability for a particular application.

**Classification procedure**

The classification of the mixture is in general based on calculation methods using substance data, as required by Regulation (EC) No 1272/2008. If for certain classifications data on the mixture is available or for example bridging principles or weight of evidence can be used for classification, this will be indicated in the relevant sections of the Safety Data Sheet. See section 9 for physical chemical properties, section 11 for toxicological information and section 12 for ecological information.

**Abbreviations and acronyms:**

- STOT - Specific Target Organ Toxicity
- DNEL - Derived No Effect Limit
- EUH - CLP Specific hazard statement
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative
- ATE - Acute Toxicity Estimate

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