

SAFETY DATA SHEET

Aval acid descaler

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

APPLICATION	Descaler
SUPPLIER	THE CARBON GROUP RINGASKIDDY CORK IRELAND Tel: +353 21 4378988 Fax: +353 21 4378950 E-mail: info@carbon.ie
CONTACT PERSON	SDS Contact: DCM Compliance, info@dcmcompliance.com
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2 HAZARDS IDENTIFICATION

Eye Contact: Risk of serious damage to the eyes.

Inhalation: Acid descaler fumes are very toxic by inhalation and may cause delayed build up of fluid on the lungs which could prove fatal.

Skin Contact: Corrosive to all parts of the body.

CLASSIFICATION (1999/45) C;R35.

CLASSIFICATION (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Skin Corr. 1A - H314
Environment	Not classified.

LABEL IN ACCORDANCE WITH (EC) NO. 1272/2008



SIGNAL WORD	Danger
CONTAINS	PHOSPHORIC ACID 25.5%

HAZARD STATEMENTS

H314	Causes severe skin burns and eye damage.
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PRECAUTIONARY STATEMENTS

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+351+338	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.
P501	Dispose of contents/container to ...

SUPPLEMENTARY PRECAUTIONARY STATEMENTS

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash ... thoroughly after handling.
P301+330+331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+361+353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Aval acid descaler

P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P321	Specific treatment (see ... on this label).
P363	Wash contaminated clothing before reuse.
P405	Store locked up.

3 COMPOSITION/INFORMATION ON INGREDIENTS

NITRIC ACID ...%		20-30%
CAS-No.: 7697-37-2	EC No.: 231-714-2	
Classification (EC 1272/2008) Ox. Liq. 3 - H272 Skin Corr. 1A - H314	Classification (67/548/EEC) O;R8 C;R35	

PHOSPHORIC ACID ...%		20-30%
CAS-No.: 7664-38-2	EC No.: 231-633-2	
Classification (EC 1272/2008) Skin Corr. 1B - H314	Classification (67/548/EEC) C;R34	

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

4 FIRST-AID MEASURES

NOTES TO THE PHYSICIAN

Further medical advice: Following exposure the patient should be kept under medical review for at least 48 hours as delayed pulmonary oedema may develop.

INHALATION

Remove victim immediately from source of exposure. Inhalation: Remove patient to fresh air. Keep warm and at rest. Administer oxygen if necessary. Apply artificial respiration if breathing has ceased or shows signs of failing. Since symptoms of gassing can be delayed medical supervision should be maintained for at least 48 hours.

INGESTION

Get medical attention immediately! Ingestion: Do not induce vomiting. Provided patient is conscious wash out mouth with water and give half a pint of water to drink.

SKIN CONTACT

Remove affected person from source of contamination. Get medical attention promptly if symptoms occur after washing. Skin Contact: Drench with large quantities of water, remove contaminated clothing and continue to wash the affected area.

EYE CONTACT

Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Eye Contact: Immediately irrigate with eyewash solution or clean water for at least 10 minutes. Continue irrigation until medical attention can be obtained.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Water or dry powder may be used on fires in the vicinity of acid descaler and containers kept cool with copious quantities of water.

SPECIAL FIRE FIGHTING PROCEDURES

Use special protective clothing. Regular protection may not be safe.

UNUSUAL FIRE & EXPLOSION HAZARDS

In contact with metals, acid descaler may liberate the flammable gas hydrogen.

SPECIFIC HAZARDS

Certain materials (Organic materials, chlorates, carbides and metallic powders) saturated with this product could have the potential for spontaneous combustion.

PROTECTIVE MEASURES IN FIRE

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6 ACCIDENTAL RELEASE MEASURES

Aval acid descaler

SPILL CLEAN UP METHODS

DO NOT TOUCH SPILLED MATERIAL! Stop leak if possible without risk. Small Spillage: Swill away with copious quantities of water.

Large Spillage: Handle with care. Water can be used if the washings can go to drain and the heat of dilution accommodated. Alternatively, the spillage should be ringed with neutralising agent and gradually soaked up with further neutralising agent, sand or earth. Inform police and local water authority immediately if product has entered public drains or waterways

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

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. Adequate ventilation is essential in view of the insidious physiological action of the fumes.

USAGE DESCRIPTION

Contact with eyes and skin must be avoided. An emergency shower, eyewash station and water supply should be provided at locations where accidental exposure is foreseeable, e.g. at filling/ discharge points. Ensure no possibility of contact with acids exists and materials used in handling are compatible with the product. Advice should be sought on selection.

STORAGE PRECAUTIONS

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container. Bulk quantities should be handled in stainless or titanium vessels and equipment supplier advice should be sought beforehand. Smaller quantities can be handled in glass or robust plastic containers.

STORAGE CLASS

Corrosive storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
NITRIC ACID ...%	WEL	2 ppm	5.2 mg/m ³	4 ppm	10 mg/m ³	
PHOSPHORIC ACID ...%	WEL		1 mg/m ³		2 mg/m ³	

WEL = Workplace Exposure Limit.

INGREDIENT COMMENTS

OES = Occupational Exposure Standard.

PROTECTIVE EQUIPMENT



ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

RESPIRATORY EQUIPMENT

Where only nuisance vapours occur a full face mask with Type B filter may be worn. For concentrations greater than 1% v/v, full breathing apparatus and protective clothing should be worn.

HAND PROTECTION

PVC gloves are recommended.

EYE PROTECTION

If risk of splashing, wear safety goggles or face shield. Close fitting chemical goggles or full face shield. Full face mask where vapours occur.

OTHER PROTECTION

Wear appropriate clothing to prevent any possibility of skin contact.

HYGIENE MEASURES

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

SKIN PROTECTION

Gloves and acid resistant footwear are essential. A PVC suit may be advisable

Aval acid descaler

9 PHYSICAL AND CHEMICAL PROPERTIES

COLOUR	Colourless to pale yellow
SOLUBILITY	Completely soluble in water
BOILING POINT (°C)	100 □C
MELTING POINT (°C)	Fp <0 □C
RELATIVE DENSITY	SG 1.2-1.4 g/cm ³
BULK DENSITY	1.37 - 1.42 kg/l
VAPOUR DENSITY (air=1)	2
pH-VALUE, DILUTED SOLUTION	< 1

10 STABILITY AND REACTIVITY**STABILITY**

Stable under normal temperature conditions.

CONDITIONS TO AVOID

Reacts with alkalis and generates heat.

MATERIALS TO AVOID

Attacks most common metals liberating toxic fumes. Powerful oxidising agent and which may react violently with organic materials, chlorates, carbides and metallic powders.

HAZARDOUS DECOMPOSITION PRODUCTS

Fire or high temperatures create: Nitric acid (HNO₃). Nitrous gases (NO_x). Phosphoric acid mist.

11 TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50	N/A
TOXIC CONC. - LC 50	N/A

INHALATION

Fumes of acid descaler are corrosive to the respiratory tract and will cause severe coughing, sore throat and laboured breathing. Fluid build up on the lung (pulmonary odema) may occur up to 48 hours after exposure and could prove fatal.

HEALTH WARNINGS

SKIN CONTACT. This substance is corrosive. Causes burns. **EYE CONTACT.** Causes burns. **INGESTION.** May cause burns in mucous membranes, throat, oesophagus and stomach. **RESPIRATORY SYSTEM.** Serious damage to the lining of nose, throat and lungs. Swallowing concentrated chemical may cause severe internal injury.

12 ECOLOGICAL INFORMATION

LC 50, 96 Hrs, FISH mg/l	N/A
EC 50, 48 Hrs, DAPHNIA, mg/l	N/A
IC 50, 72 Hrs, ALGAE, mg/l	N/A

MOBILITY

The product is partly soluble in water. May spread in the aquatic environment.

BIOACCUMULATION

No data available on bioaccumulation.

DEGRADABILITY

There are no data on the degradability of this product.

ACUTE FISH TOXICITY

As the material is a strong acid it should be prevented from entering water courses where a reduction in pH to below 5 will induce fatalities in aquatic life. In fresh water 280 ppm and in salt water 100 ppm can be lethal.

13 DISPOSAL CONSIDERATIONS**DISPOSAL METHODS**

Dispose of waste and residues in accordance with local authority requirements. Absorb in vermiculite or dry sand and dispose of at a licenced hazardous waste collection point.

14 TRANSPORT INFORMATION

Aval acid descaler

PROPER SHIPPING NAME	CORROSIVE LIQUID, OXIDIZING, N.O.S. (PHOSPHORIC ACID ...%, NITRIC ACID ...%)
ENVIRONMENTALLY HAZARDOUS SUBSTANCE/MARINE POLLUTANT	No.
UN NO. ROAD	3093
ADR CLASS NO.	8
ADR CLASS	Class 8: Corrosive substances.
ADR PACK GROUP	II
TUNNEL RESTRICTION CODE	(E)
HAZARD No. (ADR)	85
ADR LABEL NO.	8 & 5.1
HAZCHEM CODE	2W
UN NO. SEA	3093
IMDG CLASS	8
IMDG PACK GR.	II
EMS	F-A, S-Q
UN NO. AIR	3093
AIR CLASS	8
AIR SUB CLASS	5.1
AIR PACK GR.	II

15 REGULATORY INFORMATION**ENVIRONMENTAL LISTING**

Rivers (Prevention of Pollution) Act 1961. Control of Pollution (Special Waste Regulations) Act 1980.

EU DIRECTIVES

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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation EC 1272/2008 on the classification, labelling and packaging (CLP) of substances and mixtures which entered into force on 20 January 2009 and replaced both Dangerous Substance Directive 67/548/EC (DSD) and Dangerous Preparation Directive 1999/45/EC. The UN Globally Harmonised System (GHS) Safety Data Sheet format (Annex IV) is implemented as Annex II of REACH EU No 453/2010 of 20th May 2010 amending regulation (EC) No 1907/2006

STATUTORY INSTRUMENTS

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

APPROVED CODE OF PRACTICE

Classification and Labelling of Substances and Preparations Dangerous for Supply.

GUIDANCE NOTES

Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37. CHIP for everyone HSG(108).

16 OTHER INFORMATION**REVISION COMMENTS**

This revision was updated from previous Revision to incorporate requirements of REACH Regulation 1907/2006, CLP Regulation 1272/2008 and Safety Data Sheet format changes as per Annex II of REACH EU No 453/2010.

REVISION DATE 25/03/2011

Aval acid descaler

REV. NO./REPL. SDS 1
GENERATED

RISK PHRASES IN FULL

R34 Causes burns. , R35 Causes severe burns. , R8 Contact with combustible material may cause fire.

HAZARD STATEMENTS IN FULL

H272 May intensify fire; oxidiser. , H314 Causes severe skin burns and eye damage