

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : Lochinvar Descale Liquid
Revision date : 11.02.2014
Date of print : 14-03-2014

Version : 1.0.0

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

1.1 Product identifier

Lochinvar Descale Liquid

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

Descaler

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

Lochinvar Ltd.

Street : 7 Lombard Way

Postal code/city : Banbury, Oxfordshire OX16 4TJ, United Kingdom

Telephone : +44 (0) 1295 269 981

E-mail : info@lochinvar.ltd.uk

1.4 Emergency telephone number

+44 (0) 1295 269 981

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

Causes severe burns.

C ; R 35

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Eye Dam. 1 ; H318 - Serious eye damage/eye irritation : Category 1 ; Causes serious eye damage.

Skin Corr. 1A ; H314 - Skin corrosion/irritation : Category 1A ; Causes severe skin burns and eye damage.

2.2 Label elements

Labelling (67/548/EEC or 1999/45/EC)

Hazard symbols and hazard statements of dangerous substances and preparations



C ; Corrosive

R-phrases

35 Causes severe burns.

S-phrases

35 This material and its container must be disposed of in a safe way.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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

24/25 Avoid contact with skin and eyes.

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



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Corrosion (GHS05)

Signal word

Danger

Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P310 Immediately call a POISON CENTER or doctor/ physician.
P321 Specific treatment (see instructions on this label).
P405 Store locked up.
P501 Dispose of contents/container for chemical waste.

2.3 Other hazards

None

SECTION 3: Composition/ information on ingredients

3.2 Mixtures

Hazardous ingredients

L-(+)-MELKZUUR ; REACH registration No. : 01-2119474164-39-0000 ; EC No : 201-196-2; CAS No. : 79-33-4

Weight fraction : 25 - 50 %
Classification 67/548/EEC : Xi ; R41 Xi ; R38
Classification 1272/2008 [CLP] : Eye Dam. 1 ; H318 Skin Irrit. 2 ; H315

PHOSPHORIC ACID ; EC No : 231-633-2; CAS No. : 7664-38-2

Weight fraction : 2,5 - 10 %
Classification 67/548/EEC : C ; R34
Classification 1272/2008 [CLP] : Skin Corr. 1B ; H314 Eye Dam. 1 ; H318

CITRIC ACID ; EC No : 201-069-1; CAS No. : 77-92-9

Weight fraction : 2,5 - 10 %
Classification 67/548/EEC : Xi ; R36
Classification 1272/2008 [CLP] : Eye Irrit. 2 ; H319

Additional information

Full text of R-, H- and EUH-phrases: see section 16.

3.3 Components according to regulation (EG) Nr. 648/2004

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SECTION 4: First aid measures

4.1 Description of first aid measures

When in doubt or if symptoms are observed, get medical advice.

After inhalation

Provide fresh air.

In case of skin contact

Wash immediately with: Water

After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Call a physician immediately.

Self-protection of the first aider

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First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

The product itself does not burn.

5.2 Special hazards arising from the substance or mixture

None

5.3 Advice for firefighters

Special protective equipment for firefighters

Wear full chemical protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protection equipment. Provide adequate ventilation. See protective measures under point 7 and 8.

6.2 Environmental precautions

Dilute with plenty of water.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4 Reference to other sections

None

6.5 Additional information

Clear spills immediately.

SECTION 7: Handling and storage

7.1 Precautions for safe handling



Protective measures

All work processes must always be designed so that the following is excluded: Skin contact Eye contact.

Fire prevent measures

The product is not: Combustible.

7.2 Conditions for safe storage, including any incompatibilities

Keep/Store only in original container. Keep container tightly closed. Materials to avoid alkali

7.3 Specific end use(s)

None

SECTION 8: Exposure controls/personal protection

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8.1 Control parameters

Occupational exposure limit values

PHOSPHORIC ACID ; CAS No. : 7664-38-2

Limit value type (country of origin) : STEL (EC)

Limit value : 2 mg/m³

Version : 08-06-2000

Limit value type (country of origin) : TWA (EC)

Limit value : 1 mg/m³

Version : 08-06-2000

8.2 Exposure controls

Personal protection equipment

Eye / face protection

Eye glasses with side protection

Skin protection

Hand protection

Suitable gloves type : DIN EN 374

Suitable material : Butyl caoutchouc (butyl rubber). NR (natural rubber, natural latex) NBR (Nitrile rubber). Butyl/Viton. PE (polyethylene)

Required properties : liquid-tight.

Breakthrough time (maximum wearing time) : >480 min

Thickness of the glove material : 0,5 mm

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

General health and safety measures

When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing immediately. Wash hands before breaks and after work.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : red

Odour : characteristic

Safety relevant basis data

Freezing point : (1013 hPa) = 0 °C

Boiling temperature / boiling range : (1013 hPa) = 100 °C

Decomposition temperature : (1013 hPa) No data available

Flash point : not applicable

Ignition temperature : not applicable

Lower explosion limit : not applicable

Upper explosion limit : not applicable

Vapour Pressure : (20 °C) not applicable

Density : (20 °C) = 1,15 g/cm³

Water solubility : (20 °C) = 100 Wt %

PH value : = 1

PH value : (20 °C / 10 g/l) = 2,4

log P O/W : No data available

Flow time : (20 °C) No data available DIN-cup 4 mm

Viscosity : (20 °C) No data available

Odour threshold : not applicable

Relative vapour density : (20 °C) No data available

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Evaporation rate : not applicable

Oxidising liquids : No data available.

Explosive properties : Not relevant.

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

No information available.

10.3 Possibility of hazardous reactions

No information available.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

No information available.

SECTION 12: Ecological information

12.1 Toxicity

No information available.

12.2 Persistence and degradability

Biodegradable.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

No information available.

12.7 Further ecological information

None

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose according to legislation.

Product/Packaging disposal

Dispose of waste according to applicable legislation.

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Waste treatment options

Appropriate disposal / Package

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

14.1 UN number

UN 1760

14.2 UN proper shipping name

Land transport (ADR/RID)

CORROSIVE LIQUID, N.O.S. (PHOSPHORIC ACID)

Sea transport (IMDG)

CORROSIVE LIQUID, N.O.S. (PHOSPHORIC ACID)

Air transport (ICAO-TI / IATA-DGR)

CORROSIVE LIQUID, N.O.S. (PHOSPHORIC ACID)

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) : 8

Classification code : C9

Hazard identification number (Kemler

No.) : 88

Tunnel restriction code : E

Special provisions : E 0

Hazard label(s) : 8

Sea transport (IMDG)

Class(es) : 8

EmS-No. : F-A / S-B

Special provisions : LQ 0 · E 0 · Segregation Group 1 - Acids

Hazard label(s) : 8

Air transport (ICAO-TI / IATA-DGR)

Class(es) : 8

Special provisions : E 0

Hazard label(s) : 8

14.4 Packing group

III

14.5 Environmental hazards

Land transport (ADR/RID) : No

Sea transport (IMDG) : No

Air transport (ICAO-TI / IATA-DGR) : No

14.6 Special precautions for user

None

SECTION 15: Regulatory information

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

None

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment has not been carried out.

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SECTION 16: Other information

16.1 Indication of changes

None

16.2 Abbreviations and acronyms

a.i. = Active ingredient
ACGIH = American Conference of Governmental Industrial Hygienists (US)
ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road
AFFF = Aqueous Film Forming Foam
AISE = International Association for Soaps, Detergents and Maintenance Products (joint project of AISE and CEFIC)
AOAC = AOAC International (formerly Association of Official Analytical Chemists)
aq. = Aqueous
ASTM = American Society of Testing and Materials (US)
atm = Atmosphere(s)
B.V. = Beperkt Vennootschap (Limited)
BCF = Bioconcentration Factor
bp = Boiling point at stated pressure
bw = Body weight
ca = (Circa) about
CAS No = Chemical Abstracts Service Number (see ACS - American Chemical Society)
CEFIC = European Chemical Industry Council (established 1972)
CIPAC = Collaborative International Pesticides Analytical Council
CLP = REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.
Conc = Concentration
cP = CentiPoise
cSt = Centistokes
d = Day(s)
DIN = Deutsches Institut für Normung e.V.
DNEL = Derived No-Effect Level
DT50 = Time for 50% loss; half-life
EbC50 = Median effective concentration (biomass, e.g. of algae)
EC = European Community; European Commission
EC50 = Median effective concentration
EINECS = European Inventory of Existing Commercial Chemical Substances (EU, outdated, now replaced by EC Number)
ELINCS = European List of Notified (New) Chemicals (see Tab 7, Background - Guide)
ErC50 = Median effective concentration (growth rate, e.g. of algae)
EU = European Union
EWC = European Waste Catalogue
FAO = Food and Agriculture Organization (United Nations)
GIFAP = Groupement International des Associations Nationales de Fabricants de Produits Agrochimiques (now CropLife International)
h = Hour(s)
hPa = HectoPascal (unit of pressure)
IARC = International Agency for Research on Cancer
IATA = International Air Transport Association
IC50 = Concentration that produces 50% inhibition
IMDG Code = International Maritime Dangerous Goods Code
IMO = International Maritime Organization
ISO = International Organization for Standardization
IUCLID = International Uniform Chemical Information Database
IUPAC = International Union of Pure and Applied Chemistry
kg = Kilogram
Kow = Distribution coefficient between n-octanol and water
kPa = KiloPascal (unit of pressure)
LC50 = Concentration required to kill 50% of test organisms
LD50 = Dose required to kill 50% of test organisms
LEL = Lower Explosive Limit/Lower Explosion Limit
LOAEL = Lowest observed adverse effect level

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mg = Milligram
min = Minute(s)
ml = Milliliter
mmHg = Pressure equivalent to 1 mm of mercury (133.3 Pa)
mp = Melting point
MRL = Maximum Residue Limit
MSDS = Material Safety Data Sheet
n.o.s. = Not Otherwise Specified
NIOSH = National Institute for Occupational Safety and Health (US)
NOAEL = No Observed Adverse Effect Level
NOEC = No observed effect concentration
NOEL = No Observable Effect Level
NOx = Oxides of Nitrogen
OECD = Organization for Economic Cooperation and Development
OEL = Occupational Exposure Limits
Pa = Pascal (unit of pressure)
PBT = Persistent, Bioaccumulative or Toxic
pH = -log₁₀ hydrogen ion concentration
pKa = -log₁₀ acid dissociation constant
PNEC = Previsible Non Effect Concentration
POPs = Persistent Organic Pollutants
ppb = Parts per billion
PPE = Personal Protection Equipment
ppm = Parts per million
ppt = Parts per trillion
PVC = Polyvinyl Chloride
QSAR = Quantitative Structure-Activity Relationship
REACH = Registration, Evaluation and Authorization of Chemicals (EU, see NCP)
SI = International System of Units
STEL = Short-Term Exposure Limit
tech. = Technical grade
TSCA = Toxic Substances Control Act (US)
TWA = Time-Weighted Average
vPvB = Very Persistent and Very Bioaccumulative
WHO = World Health Organization = OMS
y = Year(s)

16.3 Key literature references and sources for data

None

16.5 Relevant R-, H- and EUH-phrases (Number and full text)

H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
34	Causes burns.
35	Causes severe burns.
36	Irritating to eyes.
38	Irritating to skin.
41	Risk of serious damage to eyes.

16.6 Training advice

None

16.7 Additional information

Notice the directions for use on the label.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data

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sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.
