

SAFETY DATA SHEET

(KROWN) **MR400 CONCRETE REMOVER**
Product code: MR400
Issued on: 17.02.2012
Revised: 17.01.2015 Version 1.1

1. MATERIAL / MIXTURE AND ORGANIZATION / COMPANY IDENTIFICATION

1.1. Product identification

KROWN MR400 CONCRETE REMOVER
KROWN MR400 CONCRETE RESIDUE REMOVER

1.2. The intended usages of the material or mixture and those not recommended

Cleaning agent for concrete residue in machinery

1.3. Information about the supplier of the safety data sheet

Manufacturer: **Canadian Krown Dealers Inc.**
35 Magnum Drive, Schomberg, Ontario, LOG 1T0, Canada

Telephone: +1 800-267-5744

E-mail: info@krown.com

Website: www.krown.com

Importer in the UK: KROWN Rust Control LTD
36 Coneygree Road, Tipton DY4 8XF

Telephone: 01215573874

Fax:

E-mail of the competent person: info@krowuk.co.uk

Website: www.krownuk.co.uk

1.4. Telephone for emergency situations

State fire and rescue service: 999

State police: non-emergency number 101, emergency 999

Emergency medical assistance service: 111, 999

State Poison Centre Drug and Poison Information Centre: 111

Manufacturer: +1 (905) 939-8750

2. HAZARDS IDENTIFICATION

2.1. Classification of the material/ mixture

Classification in accordance with Regulation (EC) No. 1272/2008

Physical and chemical hazards Not classified.

Human health Skin Irrit. 2; H315. Eye Dam. 1; H318.

Environment Not classified.

2.2. Label elements

Labelling in accordance with Regulation (EC) No. 1272/2008

Hazard pictograms:



SAFETY DATA SHEET

(KROWN) **MR400 CONCRETE REMOVER**
Product code: MR400
Issued on: 17.02.2012
Revised: 17.01.2015 Version 1.1

Signal word:

Dangerous

Hazard statements:

H315 Irritates skin.
H318 Causes serious eye damage.

Precautionary statements:

Prevention

P102 Keep away from children.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing, eye protection/ face protection.

Response

P301+P310 IF SWALLOWED: immediately contact POISON CENTER/ doctor...
P301+P352 IF ON SKIN: wash with large amount of water/ soap.
P303+P361 IF ON SKIN (or hair): immediately remove all contaminated clothing.
+P353 Rinse skin with water/ shower.
P305+P351 IF IN EYES: cautiously rinse with large amount of water for several
+P338 minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: get medical advise.

Contents: Lactic acid, 2-butoxyethanol

2.3. Other hazards

The mixture does not correspond to *PBT* or *vPvB* criteria.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Composition

Not applicable.

3.2. Mixtures

Names of components	CAS No.	EINECS No.	RERACH registration No.	Concentration, % of weight	Classification
Lactic acid (2-hydroxy-propionic acid)	50-21-5	200-018-0	01-2119548400-48-0000	40-70%	Xi;R38, R41 ----- Skin Irrit. 2; H315 Eye Dam. 1; H318
2-butoxyethanol	111-76-2	203-905-0	01-2119475108-36-0000 ÷ 01-2119475108-36-0012	5-15%	Xn; R20/21/22 Xi; R36/38 ----- Acute Tox. 4; H332, H312, H302 Eye Irrit. 2; H319 Skin Irrit. 2; H315

Additional information:

Please see full R phrases and H statements in Section 16.

SAFETY DATA SHEET

(KROWN) **MR400 CONCRETE REMOVER**
Product code: MR400
Issued on: 17.02.2012
Revised: 17.01.2015 Version 1.1

4. FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move the victim in fresh air.

Eye contact

Immediately rinse with large amount of water for at least 15 minutes. Before rinsing make sure there are no contact lenses in the eyes. Keep the eyelids open during rinsing. Immediately seek medical attention.

Skin contact

Wash contact area with water and soap. If the irritation remains, seek medical attention.

Ingestion

Rinse mouth with water. Drink large amount of water. DO NOT CAUSE VOMITING. Do not give anything orally to an unconscious person. Immediately seek medical attention.

Personal protective equipment of first aid provider

No other relevant information available.

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

Acute exposure effects

When in eyes

May cause permanent eye damage. Causes severe eye irritation and burns.

When on skin

May cause skin irritation / redness.

If swallowed

Harmful if swallowed. Accidental swallowing may cause nausea, diarrhoea and burns of intestinal mucosa.

If inhaled

Inhalation of vapours may irritate throat, upper respiratory tract and other mucosa. As the mixture has a low vapour pressure, no inhalation exposure is expected unless the material is heated or evaporates.

Initial access routes

[x] – Inhalation [x] – Ingestion [x] - Absorption

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

Treat symptomatically and benignly.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Non-flammable

Suitable extinguishing media

Use water, dry chemicals, carbon dioxide or suitable foam.

Non-suitable extinguishing media

No instructions.

5.2. Special hazards arising from the substance or mixture

No instructions.

5.3. Advice for fire fighters

SAFETY DATA SHEET

(KROWN) **MR400 CONCRETE REMOVER**
Product code: MR400
Issued on: 17.02.2012
Revised: 17.01.2015 Version 1.1

Extinguish as general fire.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

No special precautions indicated.

6.2. Environmental precautions

Immediately inform the responsible environmental services about the accident. Prevent release to the environment.

6.3. Methods and material for containment and cleaning up

Small leakages

Rinse with large amount of water.

Large leakages

Rinse the storage container and neutralize with mildly acidic material before disposal.

6.4. Reference to other sections

For waste disposal see Section 13, personal protective equipment indicated in Section 8.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Wear gloves, when using concentrated product. Do not breathe vapour or aerosols. Prevent skin and eye contact. Not to be taken internally. Prevent concentrated product from drying on painted or glass surface.

7.2. Conditions for safe storage, including any incompatibilities

Prevent freezing. Keep in cool, dry places in closed containers.

7.3. Specific end use(s)

Cleaning agent for concrete residue in machinery

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. Exposure limit values

Name of the component	8h OEL mg/m ³	8h OEL ppm	15min OEL mg/m ³	15min OEL ppm	Notes
2-butoxyethanol	98	20	246	50	Skin

OEL – occupational exposure limit values in accordance to Annex 1, Cabinet of Ministers' Regulations No. 325 of 15.05.2007

Note "Skin" by the occupational exposure limit value indicate that the material is absorbed through skin.

EU: Occupational exposure limit values for the contents of the mixture correspond to those approved in the Republic of Latvia.

8.1.2. Derived No Effect Levels (DNEL) and Prescribed No Effect Concentration (PNEC)

Derived No Effect Levels (DNEL)

2-butoxyethanol, CAS No. 111-76-2

DNEL

Type of exposure	Contractors
------------------	-------------

SAFETY DATA SHEET

(KROWN) **MR400 CONCRETE REMOVER**
 Product code: MR400
 Issued on: 17.02.2012
 Revised: 17.01.2015 Version 1.1

	Acute exposure, local	Acute exposure, systemic	Chronic exposure, local	Chronic exposure, systemic
Inhalation	246 mg/m ³	663 mg/m ³	Hazards have been identified, but DNEL is not available.	98 mg/m ³
Dermal	89mg/kg	Hazards have been identified, but DNEL is not available.	75mg/kg	Hazards have been identified, but DNEL is not available.

2-butoxyethanol, CAS No. 111-76-2 DNEL

Type of exposure	End-users			
	Acute exposure, local	Acute exposure, systemic	Chronic exposure, local	Chronic exposure, systemic
Per oral	13.4 mg/kg	Hazards have been identified, but DNEL is not available.	3.2 mg/kg	Hazards have been identified, but DNEL is not available.
Inhalation	246 mg/m ³	Hazards have been identified, but DNEL is not available.	123 mg/m ³	49 mg/m ³
Dermal	44.5 mg/kg	Hazards have been identified, but DNEL is not available.	38 mg/kg	Hazards have been identified, but DNEL is not available.

2-butoxyethanol, CAS No. 111-76-2 PNEC

Environmental objective	PNEC value
Freshwater	8.8 mg/l
Freshwater sediments	8.14 mg/kg
Seawater	0.88 mg/l
Seawater sediments	Hazards have been identified, but no PNEC are available
Food chain	Hazards have been identified, but no PNEC are available
Micro-organisms in sewage treatment systems	463 mg/l
Soil (farming)	2.8 mg/kg
Air	Hazards have been identified, but no PNEC are available

Additional occupational exposure limits, that may cause possible harm during processing:

2-butoxyethanol, CAS No. 111-76-2
NOAEL 100 mg/l (daphnia) (21 d., Daphnia magna; OECD 211)
> 100 mg/l (fish) (21 d., Brachydanio rerio)

8.2. Exposure controls

8.2.1. Adequate technical management

General instructions: In case of emergency, see Section 6.

Technical measures: Local exhaust ventilation.

8.2.2. Such individual protection measures as personal protective equipment

The selection of personal protective equipment may differ based on the circumstances of use.

Eye/face protection: Use goggles (EN166), face protection.

Hand protection: use impervious gloves (EN374).

SAFETY DATA SHEET

(KROWN) **MR400 CONCRETE REMOVER**
Product code: MR400
Issued on: 17.02.2012
Revised: 17.01.2015 Version 1.1

Body protection: Use work clothing (for example. safety footwear and long-sleeved protective clothing in correspondence to EN ISO 20345 requirements).

Respiratory protection: For normal use, not required. If vapours/ aerosols are formed use type A filter (colour – brown).

Thermal hazards: Not applicable.

Hygienic measures: Recommended to comply with the general safety and personal hygienic measures, when handling chemical substances. Wash hands before breaks and after work.

8.2.3. Environmental risk management

Information not available.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

a) appearance	Clear amber liquid
b) odour	Data not available
c) odour threshold	Data not available
d) pH	1.2-1.4
e) melting / freezing point	0 °C
f) boiling temperature and boiling temperature range	115 °C
g) flash temperature	Not flammable
i) flammability (for solids, gasses)	Not applicable
j) upper/ lower flammability or explosive limit	Not applicable
h) evaporation rate (water=1)	Data not available
k) vapour pressure (mm Hg)	0.7
l) vapour density (air=1)	Data not available
m) relative density	1.135
n) solubility in water	Soluble
o) partition coefficient: n-octanol/water	Data not available
p) ignition temperature	Not applicable
q) degradation temperature	Data not available
r) viscosity	Data not available
s) explosion hazard	Data not available
t) oxidation properties	Data not available

9.2. Other information

Data not available

10. STABILITY AND REACTIVITY

10.1. Reactivity

No hazardous reactions

SAFETY DATA SHEET

(KROWN) **MR400 CONCRETE REMOVER**
Product code: MR400
Issued on: 17.02.2012
Revised: 17.01.2015 Version 1.1

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Darkens aluminium, pewter, zinc. Stains anodised aluminium and glass, if left to dry.

10.5. Incompatible materials

Acidic materials.

10.6. Hazardous decomposition products

O₂, CO₂, H₂SO₄, harmful smoke.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological information

No data available regarding toxicity of the mixture.

a) acute toxicity

The toxicological effects have been evaluated based on the basic data about component toxicity.

Component toxicity

2-butoxyethanol, CAS No. 111-76-2 - acute toxicity

LD50 – 470 mg/kg (rat, ingestion)

LD50 – 220 mg/kg (rabbit, through skin)

LC50 – 2 mg/l/4h (rat, inhalation)

Lactic acid, CAS No. 50-21-5 – acute toxicity

LD50 – 3543 mg/kg (rat, ingestion)

LD50 - >2 mg/kg (rabbit, through skin)

b) caustic irritation

May cause skin irritation/ redness.

c) serious eye damage/ irritation

May cause permanent eye damage. Causes severe eye irritation and damage.

d) respiratory or skin sensitization

No data available regarding sensitizing effect of the mixture or components.

e) germ cell mutagenicity

No data available regarding mutagenic effect of the mixture or components.

f) carcinogenicity

No data available regarding carcinogenic effect of the mixture or components.

g) reproductive toxicity

No data available regarding reproductive toxicity of the mixture or components.

h) Specific target organ toxicity, single exposure

Harmful if swallowed. Accidental swallowing may cause nausea, diarrhoea and burns of intestinal mucosa.

i) specific target organ toxicity, repeated exposure

Target organs: respiratory system, digestive system, eyes, skin.

j) hazards caused by inhalation

Not classified as aspiration hazard.

SAFETY DATA SHEET

(KROWN) **MR400 CONCRETE REMOVER**
Product code: MR400
Issued on: 17.02.2012
Revised: 17.01.2015 Version 1.1

Other hazards

The existence of other hazards can not be excluded.

12. ECOLOGICAL INFORMATION

Mixture components are not classified as dangerous to environment. However, it does not exclude the possibility that large or frequent spills may be hazardous or have adverse effect on the environment. Product may affect water acidity (pH level) and have adverse effect on aquatic organisms.

12.1. Toxicity

Component toxicity

2-butoxyethanol, CAS No. 111-76-2 – acute toxicity

Acute toxicity

Fish

LC50 (96 h) 1341 mg/l, *Lepomis macrochirus* (Bluegill)

Aquatic invertebrates

EC50 (24h) 1720 mg/l, *Daphnia magna* (daphnia)

12.2. Persistence and degradability

Persistence

Water soluble. Based on the available information, persistence is unlikely.

12.3. Bioaccumulative potential

Product does not contain components that are considered bioaccumulative.

Decomposition coefficient

Not available.

12.4. Mobility in soil

The mixture is water soluble and easily moves in soil.

12.5. Results of PBT and vPvB assessment

No data available on the results of PBT and vPvB assessment.

12.6. Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Comply with the legislative documents of the EU and the Republic of Latvia, regulating waste treatment.

This product, solvents and other byproducts must be disposed of in accordance with the environmental requirements, waste storage legislation and the regulations of local municipalities.

Product residue and wastes

Do not store with municipal waste. Transfer waste for disposal or recycling to a licensed waste treatment company.

Waste code

060199 Other wastes from technological processes of acid production, preparation, delivery and use

Container and packaging waste

When possible, recycle containers and packaging free from product residue. Only completely emptied

SAFETY DATA SHEET

(KROWN) **MR400 CONCRETE REMOVER**
Product code: MR400
Issued on: 17.02.2012
Revised: 17.01.2015 Version 1.1

containers may be recycled.

Waste codes

If the container is free from product residue

150102 Plastic packaging

If the container contains product residue

150110 Packaging containing hazardous residue or contamination

Additional information for waste treatment company personnel

It is advised to comply with the general protective and hygiene measures when working with chemical substances. Prevent spilling and rinsing of spillage material, as well as contact with soil, water bodies, kennels and drains.

14. TRANSPORT INFORMATION

14.1 UN number

Land transportation	UN3265
Marine transportation	UN3265
Air transportation	UN3265

14.2. UN proper shipping name

Organic Acid, N.O.S. (2-Hydroxypropanoic acid)

14.3. Transport hazard class(-es)

ADR class	Class 8: Caustic substances
ADR label	8
IMDG class	8
ICAO class/ section	8
Hazard label	



14.4. Packaging group

ADR/RID/ADN packaging group	III
IMDG packaging group	III
ICAO/IATA packaging group	III

14.5. Environmental hazards

Marine pollutant	No
------------------	----

14.6. Special precautions for user

Before handling the product, become acquainted with the safety instructions, SDS and emergency procedure descriptions.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SAFETY DATA SHEET

(KROWN) **MR400 CONCRETE REMOVER**
Product code: MR400
Issued on: 17.02.2012
Revised: 17.01.2015 Version 1.1

15. REGULATORY INFORMATION

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

Regulation (EC) No. 1907/2006 (18 December, 2006) of the European Parliament and of the Council 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

Regulation (EC) No. 1272/2008 (16 December, 2008) of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Commission Regulation (EU) No 453/2010 (20 May 2010) amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Commission Regulation (EU) No 487/2013 (8 May 2013) amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures.

Procedures for Classification, Labelling and Packaging of Chemical Substances and Chemical Products (Regulations of the Cabinet of Ministers' of the Republic of Latvia No. 107 of 12.03.2002)

Labour Protection Requirements when Coming in Contact with Chemical Substances at Workplaces (Regulations of the Cabinet of Ministers' of the Republic of Latvia No. 325 of 15.05.2007)

15.2. Chemical risk assessment

No data on chemical risk assessment

16. OTHER INFORMATION

Developed on: 17.02.2012

Developed by: J. Brideau (905) 939-8750

Reviewed: on 17 January, 2015, SIA "Retorte"

Reviewed Sections 1-15 in correspondence with the current legislation of the EU.

Information sources

Information has been reviewed and supplemented, based on the safety data sheet developed by the manufacturer and existing legislation.

Classification in accordance with the Directive of the Council 67/548/EEC and Directive 1999/45/EC

Xi; R36/38, R41

Labelling in accordance to 1999/45/EC

Hazard pictograms

Xi



Irritating

Risk phrases

R36/38

Irritates eyes and skin.

R41

Risk of serious damage to eyes.

SAFETY DATA SHEET

(KROWN) **MR400 CONCRETE REMOVER**
Product code: MR400
Issued on: 17.02.2012
Revised: 17.01.2015 Version 1.1

Safety phrases

S2 Keep away from children.
S24/25 Prevent skin and eye contact.
S26 In case of contact with eyes, rinse Immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of water.
S36/37/39 Wear suitable protective clothing, protective gloves and eye or face protection.
S46 If swallowed, seek medical advice immediately and show this container or label

Contents: lactic acid; 2-butoksyethanol

Section 2 and 3 chemical material effect descriptions (R phrases) and hazard labels (H label) in full:

R38 Irritating to eyes.
R41 Risk of serious damage to eyes.
R20/21/22 Harmful in contact with skin, harmful if swallowed, toxic by inhalation
R36/38 Irritating to eyes and skin.

Skin Irrit. 2 Skin irritation, Hazard Category 2
H315 Irritates skin
Eye Dam. 1 Serious eye damage, Hazard Category 1
H318 Causes serious eye damage.
Acute Tox. 4 Acute toxicity, Hazard Category 4
H332 Harmful if inhaled
H312 Harmful in contact with skin
H302 Harmful if swallowed
Eye Irrit. 2 Eye irritation, Hazard category 2
H319 Causes serious eye irritation

Abbreviations and acronyms used in the safety data sheet:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
ICAO: International Civil Aviation Organization
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)
EINECS: European Inventory of Existing Commercial Chemical Substances
OEL: Occupational exposure limit
STEL: Short term exposure limit
TWA: Time-weighted average

SAFETY DATA SHEET

(KROWN) **MR400 CONCRETE REMOVER**
Product code: MR400
Issued on: 17.02.2012
Revised: 17.01.2015 Version 1.1

Disclaimer

The information in this safety data sheet is based on the data provided by the product manufacturer, which is to be deemed correct; however, the product importer, nor its manufacturer shall guarantee that this information is comprehensive, nor shall bare any responsibility of the consequences caused by the use of this information. It is the responsibility of the user of the product, to evaluate the information provided here and its applicability to the current circumstances of the product usage, as well as to carry out all necessary safety procedures, when using this product.

End of safety data sheet