

SAFETY DATA SHEET

(KROWN) **ENVIRO SOL**
Product code: MR32
Issued on: 17.02.2012
REVISED: 22.09.2014 VERSION 1.1

1. MATERIAL / MIXTURE AND ORGANIZATION / COMPANY IDENTIFICATION

1.1. Product identification

KROWN MR32 ENVIRO SOL
KROWN MR32 ENVIRO SOL CLEANER

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

D-limonene containing universal cleaner / degreaser

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 EU: **SIA KROWN EU**
Ganību dambis 25f, Rīga, LV 1005, Latvia

Telephone: +371 67491330

Fax: +371 67491331

E-mail of the competent person: info@krowneurope.com

Website: www.krowneurope.com

1.4. Telephone for emergency situations

State fire and rescue service: 01, 112

State police: 02, 110

Emergency medical assistance service: 03, 113

State Poison Centre Drug and Poison Information Centre: +371 67042473

Manufacturer: +371 67491330

2. HAZARDS IDENTIFICATION

2.1. Classification of the material/ mixture

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

Physical and chemical hazards Flam. Liq. 3, H226

Human health Skin Irrit. 2; H315. Skin Sens. 1; H317

Environment Aquatic Acute 1; H400. Aquatic Chronic 1; H410

2.2. Label elements

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

Hazards pictographs:



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Signal word:

Dangerous

Hazard statements:

H226 Flammable liquid and vapours.
H315 Irritates skin.
H317 May cause allergic skin reaction.
H410 Very toxic to aquatic organisms with long-lasting effects.

Precautionary statements:

P102 Keep away from children
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. From smoking.
P273 Avoid release into environment.
P280 Use protective gloves/ protective clothing/ eye protection/ face protection
P301+P310 IF SWALLOWED, contact POISON CENTRE / doctor...
P302+P352 IF ON SKIN, wash with large amount of water/soap.
P331 DO NOT INDUCE vomiting.

Special labelling in accordance with the requirements of 648/2004/EC and (EC) 907/2006:

Contains: DIPENETENE, d-LIMONENE. May cause allergic reaction.

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
(R)-p-menthadiene-1.8; d-limonene	5989-54-8	227-815-6	No registration data	30-50 %	R10 Xi; R38 R43 N; R50-53 ----- Flam. Liq. 3; H226 Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410

Additional information:

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

4. FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

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Move person in fresh air and ensure peace.

Eye contact

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. If the irritation remains, seek medical attention.

Skin contact

Immediately remove contaminated clothing. Wash contact area thoroughly with water and soap. If the irritation remains, seek medical attention.

Ingestion

Rinse mouth with water. Drink large amount of water. Do not induce vomiting. Do not give anything orally to an unconscious person. IMMEDIATELY seek medical attention. In case of spontaneous vomiting, hold head low to prevent aspiration.

Personal protective equipment of first aid provider

No other relevant information available.

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

Inhalation symptoms: retching, drowsiness, respiratory problems.

Eye contact symptoms: irritation, redness.

Skin contact symptoms: irritation, burning.

Ingestion symptoms: nausea, stomach cramps.

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

No other relevant information about the effects of the mixture available.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Dry chemicals, carbon dioxide, foam.

Non-suitable extinguishing media

Do not use water for extinguishing fire. (Water is not suitable for pouring on burning material, but it can be used to cool containers that are exposed to heat.)

5.2. Special hazards arising from the substance or mixture

At increased temperatures may form explosive mixtures with air and in closed containers pressure may build. Do not breathe smoke and vapour.

In case fire carbon monoxide and carbon dioxide may be released.

5.3. Advice for fire fighters

Protective equipment

Use respiratory protection apparatus with autonomous air supply and complex protective clothing.

Additional information

Prevent fire fighting water from entering into water bodies or ground water.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

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DO NOT SMOKE and do not expose product to open flame or other potential sources of ignition. Wear suitable gloves to prevent effects on skin. Prevent skin contact and do not breathe vapour or smoke.

6.2. Environmental precautions

Immediately inform the responsible environmental services about the accident. Prevent environmental pollution by preventing release into drains or water bodies. Prevent release into sewage systems due to potential explosion hazard.

6.3. Methods and material for containment and cleaning up

Small leaks

Rinse with large amount of water.

Large leaks

Cover with inter, inorganic, non-flammable absorbing material (for example, dry lime, sand, ashes). Ventilate the premises and wash the contaminated are after the collection of the material. Dispose of in accordance with the existing rules and regulations.

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 impervious gloves, when using a concentrated product. Prevent eye and skin contact. Not to be taken internally.

7.2. Conditions for safe storage, including any incompatibilities

Prevent freezing. Keep in cool, dry place in sealed containers. Do not store with food, beverages or animal food.

7.3. Specific end use(s)

Solvent - cleaner / degreaser

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. Exposure limit values

There are no exposure limit values indicated for the product or its components.

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

Derived No Effect Levels (DNEL)

There are no DNEL or PNEC values indicated for the product or its components.

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 protective goggles (EN 166).

Hand protection: Use impervious protective gloves (EN374).

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Body protection: Use work clothing and waterproof footwear (for example, impervious footwear and long-sleeved work clothing in accordance to EN ISO 20345).

Respiratory protection: For normal use, not required. In case of formation of vapours/aerosols, use type A filter (colour – brown).

Thermal hazards: Not applicable.

Hygienic measures: Comply with the general protection and hygienic measures for working with chemical substances when handling the product. 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	Light orange liquid
b) odour	Citrus odour
c) odour threshold	Not applicable
d) pH	Not applicable
e) melting / freezing point	-90 °C
f) boiling temperature and boiling temperature range	>160 °C
g) flash temperature	43°C (DIN 51758)
i) flammability (for solids, gasses)	Non-flammable
j) upper/ lower flammability or explosive limit	0,7 – 6,1 tilp.%
h) evaporation rate (water=1)	Data not available
k) vapour pressure (mm Hg)	2.1
l) vapour density (air=1)	Data not available
m) relative density	0,84 g/cm ³
n) solubility in water	Immiscible or difficult to mix
o) partition coefficient: n-octanol/water	4.38 log POW
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

10. STABILITY AND REACTIVITY

10.1. Reactivity

Possible formation of peroxides.

10.2. Chemical stability

Stable in normal use.

10.3. Possibility of hazardous reactions

Possible hazardous reactions to oxidizers.

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10.4. Conditions to avoid

Heating.

10.5. Incompatible materials

Powerful oxidizer

10.6. Hazardous decomposition products

During burning CO, CO₂, smoke and unidentified organic compounds may form.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological information

a) acute toxicity

LD50 (estimated value): >5000 mg/kg (rabbit, through skin)

b) caustic irritation

Irritates skin and mucosa.

c) serious eye damage/ irritation

Mild irritation.

d) respiratory or skin sensitization

Possible sensitization by contact with skin.

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

No data available regarding toxicity of the mixture or components.

i) specific target organ toxicity, repeated exposure

No data available regarding toxicity of the mixture or components.

j) hazards caused by inhalation

No data available regarding hazards caused by inhalation of the mixture.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

No data available regarding toxicity of the mixture.

12.2. Persistence and degradability

No data available regarding the degradability of the mixture.

12.3. Bioaccumulative potential

No data available regarding the bioaccumulative potential.

12.4. Mobility in soil

Mixture is water soluble and easily travels in soil.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

No instructions.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Product residue and wastes

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

Waste code

070104 Other organic solvents, washing liquids and mother liquors

Container and packaging waste

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

14. TRANSPORT INFORMATION

14.1 UN number

UN 2052

14.2. UN proper shipping name

ADR 2052 DIPENTENE, ENVIRONMENTAL HAZARD

IMDG DIPENTENE, MARINE POLLUTANT

ICAO/IATA DIPENTENE

14.3. Transport hazard class(-es)

ADR/RID/ADN 3 Flammable liquids

IMDG 3.3

ICAO, IATA class/division 3 Flammable liquids

Hazard label



14.4. Packaging group

ADR/RID/ADN packaging group III

IMDG packaging group III

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ICAO/IATA packaging group III

14.5. Environmental hazards

Marine pollutant Yes. Environmental hazard, liquid
Special labelling (ADR): Symbol (fish and tree)

14.6. Special precautions for user

Hazard (Kemler) code 30
EMS F-E, S-E

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

Not applicable.

14.8. Transportation/ other information

ADR
Limited quantities (LQ) 5L
Transportation category 3
Limitation of tunnel use code D/E

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)

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

R10 Xi;R38 R43 N;R50/53

Labelling in accordance with 1999/45/EC

Hazard labels

Xi N

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Irritating



Dangerous for the environment

Risk phrases

R10 Flammable
R38 Irritates skin.
R43 May cause sensitization by skin contact.
R50/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases

S2 Keep away from children.
S24 Prevent contact with skin.
S37 Wear suitable gloves.
S60 This material and its container must be disposed of as hazardous waste
S61 Avoid release to the environment. Refer to special instructions / safety data sheet
S46 If swallowed, immediately seek medical attention and show this container or label.
Note C Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the manufacturer or any other person who markets such a substance should state on the label whether the substance is a specific isomer or a mixture of isomers.

15.2. Chemical risk assessment

No data on chemical risk assessment

16. OTHER INFORMATION

Developed on: 17.02.2012

Developed by: J. Brideau (800) 267-5744

Reviewed: on 22 September, 2014, 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.

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

R10 Flammable.
R38 Irritates skin.
R43 May cause sensitization by skin contact.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Note C Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the manufacturer

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or any other person who markets such a substance should state on the label whether the substance is a specific isomer or a mixture of isomers.

Flam. Liq. 3 H226	Flammable liquid, Hazard Category 3 Flammable liquid and vapour.
Skin Irrit. 2 H315	Skin irritation, Hazard Category 2 Irritates skin
Skin Sens. 1 H317	Sensitization by contact with skin, Hazard Category 1 May cause allergic skin reaction.
Aquatic Acute 1 H400	Substance hazardous to aquatic environment, Acute Hazard Category 1 Very toxic to aquatic organisms.
Aquatic Chronic 1 H410	Substance hazardous to aquatic environment, Chronic Hazard Category 1 Very toxic to aquatic organisms with long-lasting effects.

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

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