

SAFETY DATA SHEET

(Krown) **MR35 SALT ELIMINATOR - AEROSOL**
Product code: MR35
Issued on: 17.02.2012.
Revised: 08.07.2014. Version 1.1

1. MATERIAL / MIXTURE AND ORGANIZATION / COMPANY IDENTIFICATION

1.1. Product identification

KROWN MR35 SALT ELIMINATOR - AEROSOL

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

Salt eliminator – aerosol with Bag-on-Valve technology

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.krow.com

Importer in the EU: **SIA KROWN FACTORY**
Ganību dambis 25f, Riga, 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, 112
Emergency medical assistance service: 03, 113
State Poison Centre Drug and Poison Information Centre: +371 67042473
Manufacturer: +1 800-267-5744

2. HAZARDS IDENTIFICATION

2.1. Classification of the material/ mixture

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

Not classified.

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

Physical and chemical hazards	Aerosol 3; H229
Human health	Not classified.
Environment	Not classified.

2.2. Label elements

Labelling in accordance with 1999/45/EC

Hazard statements:

No

Safety phrases:

S2 Keep out of the reach of children.

S23 Do not breathe fumes or aerosols.

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S46 If swallowed, seek medical advice immediately and show this container or label

Additional labels:

The container is under pressure: protect form sunlight and do not expose to temperatures exceeding 50°C. Do not pierce and burn. Do not spray near open flame or heat sources.

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

Hazards pictograms:

Not required

Hazard statements:

H229 Pressurized container: may explode if heated.

Precautionary statements:

P102 Keep away from children

P210 Keep away from heat, hot surfaces, sparks, open flame and other ignition. No smoking.

P251 Do not pierce or burn, even after use.

P260 Do not breathe vapours/spray.

P410+412 Protect form sunlight. Do not expose to temperatures exceeding 50°C/122°F

Contents:

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
2-butoxyethanol	111-76-2	203-905-0	---	1-5%	Xn; R20/21/22 Xi; R36/38 ----- Acute Tox. 4; H332, H312, H302 Eye Irrit. 2; H319 Skin Irrit. 2; H315
Air	132259-10-0	---	No registration data	≤30%	Not classified

Additional information:

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

4. FIRST AID MEASURES

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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. If the irritation remains, seek medical attention.

Skin contact

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

Ingestion

Due to the physical properties of the product, ingestion is unlikely. If accidentally ingested, 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

Accidental ingestion of large quantities may cause nausea, diarrhoea and irritation of intestinal mucosa.

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

Water spray or water mist, dry chemicals, carbon dioxide, foam.

Non-suitable extinguishing media

Do not use powerful water stream to extinguish flame, as it can facilitate spreading of fire.

5.2. Special hazards arising from the substance or mixture

Product's vapour in mixture with air may ignite from sparks, flame or other ignition sources. Product's vapour is heavier than air and may travel along the ground surface. Leaks may cause fire or explosion hazard. Spray bottles may explode, when heated. Broken spray bottle's may burst and endanger the personnel.

5.3. Advice for fire fighters

When extinguishing indoor fires and any significant outdoor fires, adequate personal protective equipment and respiratory protection apparatus with independent air supply. For smaller outdoor fires that can be easily extinguished with portable fire extinguisher, the use of respiratory protection apparatus with independent air supply is not obligatory.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Emergency personnel in contaminated areas must use adequate personal protective equipment and certified self-contained breathing apparatus. Protective goggles and impervious gloves must be used. Move

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containers threatened by fire, if possible without risk. Remove or extinguish fire sources or combustion facilities, evacuate confined spaces, until the gas is dispersed, keep upwind. Spray containers threatened by fire with water to cool them, in order to prevent pressure increase, auto-ignition or explosion. Use shields for personal protection in case of decompression, bursting or explosion of the containers.

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 water

Large leakages

If possible without risk, stop the leakage. Collect the leaked liquid with absorbing, non-flammable material and place in suitable containers for 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

Emergency personnel in contaminated areas must use adequate personal protective equipment and certified self-contained breathing apparatuses. Use protective goggles and impervious gloves. Spilled product may be slippery.

7.2. Conditions for safe storage, including any incompatibilities

Prevent freezing. Keep in cool, well ventilated areas in closed containers.

7.3. Specific end use(s)

Salt eliminator

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. Exposure limit values

Name of the component	8 h 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

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Type of exposure	Contractors			
	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: Preventive measures – minimize exposure to the effects of liquid, vapour, mist or fumes. 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: If possible eye contact, use goggles (EN166).

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Hand protection: For normal use, not required. Nitrile protective gloves (EN374) recommended.

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. When exceeding occupational exposure limit (OEL): Filter A (EN 14387), identification 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	Aerosol. Orange/red liquid.
b) odour	Fruit/citrus aroma
c) odour threshold	Not applicable
d) pH	4.1
e) melting / freezing point	0 °C
f) boiling temperature and boiling temperature range	100 °C
g) flash temperature	Not applicable
i) flammability (for solids, gasses)	Not flammable
j) upper/ lower flammability or explosive limit	Not applicable
h) evaporation rate (water=1)	>1
k) vapour pressure (mm Hg)	Not specified
l) vapour density (air=1)	Data not available
m) relative density	1.017
n) solubility in water	Excellent
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

10. STABILITY AND REACTIVITY

10.1. Reactivity

No hazardous reactions

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

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No data available

10.4. Conditions to avoid

Do not store with strong acids and oxidizers. Prevent freezing. Do not expose to temperatures exceeding 50 °C/122 °F

10.5. Incompatible materials

Sodium hypochlorite, peroxides.

10.6. Hazardous decomposition products

Carbonic oxides, harmful smoke.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological information

a) acute toxicity

No data available regarding toxicity of the mixture.

Component toxicity

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

Acute toxicity

Harmful – if digested

LD50 – 470 mg/kg (rat, ingestion)

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

LC50 – 2 mg/l/4h (rat, inhalation)

b) caustic irritation

May cause skin irritation. May cause skin dryness.

c) serious eye damage/ irritation

Concentrated mixture may cause inflammation of eye mucosa.

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

No data available regarding toxicity of the mixture.

i) specific target organ toxicity, repeated exposure

No data available regarding toxicity of the mixture.

j) hazards caused by inhalation

No data available regarding inhalation hazards of the mixture.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

No data available regarding toxicity of the mixture.

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Component toxicity

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

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

The product is easily biologically degradable.

12.3. Bioaccumulative potential

2-butoxyethanol, CAS No. 111-76-2 Log Pow 0.81 (25°C)

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

Prevent leakage of concentrated mixture into water bodies and drains.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

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

Product residue and wastes

Prevent discharge into drains. Do not store with municipal waste. Transfer waste for disposal or recycling to a 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 recycled.

Waste codes

If the container is free from product residue

150104 Metal 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 1950

14.2. UN proper shipping name

AEROSOLS, flammable

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14.3. Transport hazard class(-es)

ADR/RID/ADN 2
IMDG Class 2
ICAO/IATA class/ section 2
Hazard label

14.4. Packaging group

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

14.5. Environmental hazards

Marine pollutant No

14.6. Special precautions for user

Not classified.

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

Not applicable.

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, 2006) 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.

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

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Reviewed: on 10 July, 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:

R20/21/22 Harmful in contact with skin, harmful if swallowed, toxic by inhalation
R36/38 Irritating to eyes and skin.

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
Skin Irrit. 2 Skin irritation, Hazard Category 2
H315 Irritates skin

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

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