

SAFETY DATA SHEET

(Krown) **KROWN T40 RUST PROTECTION & LUBRICANT (AEROSOL)**
Product code: T-40
Issued on: October, 2006
Revised: 23.05.2014 Correction: 1

1. MATERIAL / MIXTURE AND ORGANIZATION / COMPANY IDENTIFICATION

1.1. Product identification

KROWN T40 RUST PROTECTION & LUBRICANT (AEROSOL)

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

Penetrating lubricant, rust protection

1.3. Information about the supplier of the safety data sheet

Manufacturer: SIA KROWN FACTORY

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, 112

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 the European Committee Directive 67/548/EEC and Directive 1999/45/EC

F+; R12

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

Aerosol 1; H222

2.2. Label elements

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

Hazard pictograms:



GHS02

Signal word:

Danger

Hazard statements:

H222 Extremely flammable aerosol

H229 Pressurized container: may burst if heated

Precautionary statements:

P102

Keep away from children

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P210 Keep away from heat, hot surfaces, sparks, open flame and other ignition. No smoking.
P211 Do not spray on open flame or other sources of ignition.
P251 Do not pierce or burn, even after use.
P260 Do not breathe vapours/spray.
P410+412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F
P501 Dispose of the content/container in accordance with local regulation.

Additional labels in accordance to Regulation (EC) No. 648/2004:

>=30% Aliphatic carbohydrates

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
Petroleum hydrocarbons	---	---	No registration data	40-70	Not classified
Isobutane (contains less than 0.1% butadiene (203-40408))	75-28-5	200-857-2	No registration data	10-30	F+,R12 Flam. Gas 1, H220 Press. Gas
1,1,1,2-tetrafluoroethane (R134a)	74-98-6	200-827-9	01-2119486944-21	5-10	F+,R12 Flam. Gas 1, H220 Press. Gas

4. FIRST AID MEASURES

4.1. Description of first aid measures

Eye contact

In case of eye contact, immediately rinse with running 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, repeat. IMMEDIATELY seek medical attention.

Skin contact

In case of skin contact, wash with large amount of water and soap. If the irritation or redness occurs, seek medical attention.

Inhalation

In case of inhalation of vapour or spray mist, move the victim away from the source of contamination in fresh air. Seek medical attention, if necessary.

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Ingestion

Due to the physical properties of the product, ingestion is highly unlikely. If accidentally ingested, do NOT cause vomiting, immediately drink one glass of water to dilute the stomach contents. Contact doctor. Even a little aspiration in the respiratory system during ingestion or vomiting may cause mild to severe lung damage and possible death.

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

Contact with pressurized gas may cause skin frostbite.

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

Health research shows that many petroleum hydrocarbons cause potential harm to human health, which can be very different from one person to another.

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide, dry chemicals, water spray or water mist.

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 a mixture with air may ignite from sparks, flame or other sources of ignition. Product's vapour is heavier than air and travels along the ground surface. Leakages may cause fire or explosion hazard. Spray bottles can explode, when heated. Broken spray bottles can burst and injure 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. Spilled product can be slippery.

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

If possible without risk, stop the spillage. Collect spillage with absorbing, non-flammable material and place in suitable containers for utilization. Move containers away from fire, if possible without risk. Remove or extinguish fire sources or combustion facilities, evacuate confined spaces, until the gas is dispersed, keep

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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.

6.4. 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

Comply with general requirements for handling spray bottles. Keep away from heat and fire. Do not press, cut, heat or weld the spray bottles. Empty spray bottles can contain product residue.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open fire. Keep in sealed, labelled containers in cool, dry, well ventilated area. Do not store with incompatible substances or materials.

7.3. Specific end use(s)

Lubricant with penetrating properties, rust protection

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
Mineral oils, petroleum mineral oils	5	-	-	-
Propane	100	-	300	-

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

There is no information about the derived no effect levels (DNEL) and prescribed no effect concentration (PNEC) concerning the mixture and its components.

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: Provide suitable ventilation in the work place. Local exhaust ventilation is recommended.

8.2.2. Such individual protection measures as personal protective equipment

Eye/face protection: Goggles in accordance to EN 166 recommended.

Hand protection: Safety gloves recommended.

Body protection: Recommended work clothing in accordance to EN943: Protective clothing against liquid and gaseous chemicals, aerosols and solid particles

Respiratory protection: Respirators in accordance with EN 14387 recommended.

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Thermal hazards: Apply traditional personal protective equipment to prevent direct contact to sprayed aerosol.

Hygienic measures: Working with the product, it is recommended to apply general protective and hygienic measures for work with chemical substances.

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
b) odour	Odourless
c) odour threshold	Not specified
d) pH	Not applicable
e) melting / freezing point	Not specified (for liquid phase) 113.6 K (-159.6 °C) (for isobutene)
f) boiling temperature and boiling temperature range	Not specified (for liquid phase) 261.5 K (-11.7) (for isobutane)
g) flash temperature	>185 °C COC (for liquid phase) -104 °C (for propane)
h) evaporation rate (water=1)	Data not available
i) flammability (for solids, gasses)	Not applicable
j) upper/ lower flammability or explosive limit	Not specified (for liquid phase)
- lower flammability or explosive limit	108-2.1 air (volume %) (for propellant)
- upper flammability or explosive limit	8.5-9.5 air (volume %) (for propellant)
k) vapour pressure (mm Hg)	33-109.73 psig@21.1 °C (for propellant)
l) vapour density (air=1)	Data no available
m) relative density	0.6-0.7 g/cm ³
n) solubility in water	Insoluble
o) partition coefficient: n-octanol/water	Data not available
p) ignition temperature	450-460 °C
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

Data not available.

10.2. Chemical stability

Stable.

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10.3. Possibility of hazardous reactions

Explosion hazard in contact with chlorine dioxide. Heating barium peroxide with propane causes powerful exothermic reaction. Heated chlorine – propane mixtures are explosive under certain circumstances. Spray bottles may explode, if heated.

10.4. Conditions to avoid

Keep away from powerful oxidizers and heat sources, prevent heating. Do not expose to temperatures exceeding 50 °C/122 °F.

10.5. Incompatible materials

Powerful oxidizers, chlorine dioxide, barium peroxide.

10.6. Hazardous decomposition products

Carbonic monoxide, carbonic dioxide.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological information

a) acute toxicity

No information about acute toxicity available.

Component toxicity

Propane, LC50: 280000 ppm/4h – rat, inhalation

Isobutane, LC50: 658000 mg/m³/4h – rat, inhalation

b) caustic irritation

Direct contact of the skin or mucosa with the spray may cause frostbite.

c) serious eye damage/ irritation

Direct contact of the skin or mucosa with spray may cause frostbite and permanent eye 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.

f) carcinogenicity

Petroleum oils may contain polycyclic aromatic hydrocarbon (PAH) admixtures. Treating oils with solvents and hydrocarbon, PAHs are separated, virtually eliminating the risk of cancer caused by the effect of PAHs and oils.

g) reproductive toxicity

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

h) Specific target organ toxicity, single exposure

May increase cardiac sensitivity to adrenaline, which may cause irregular heartbeat and reduce cardiac functional capabilities.

i) specific target organ toxicity, repeated exposure

Consuming large per oral doses, this product caused temporary stomach, liver and kidney damage in rats (males only). If the occupational exposure limits are not exceeded the effect on humans is insignificant.

Toxicity of repeated dose:

Propane: NOAEC 4000 ppm (rat, inhalation)

Method: OECD 422 (Combined repeated dose toxicity test with reproductively / development toxicity screening)

Propane LOAEC 12000 ppm (rat, inhalation)

Method: OECD 422 (Combined repeated dose toxicity test with reproductively / development toxicity screening)

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j) hazards caused by inhalation

Spray vapour may irritate mucosa and respiratory system

12. ECOLOGICAL INFORMATION

No data available on the ecological impact of the product, the evaluation is performed based on the information about the mixture components.

12.1. Toxicity

No data on mixture toxicity.

Component toxicity

Toxicity to fish

Propane, LC50: 49.9 mg/l/96h, fish

Toxicity to daphnia and other aquatic invertebrates

Propane, EC50: 27.1 mg/l/48h, Daphnia magna (daphnia)

Toxicity to algae

Propane, EC50: 11.0 mg/l/72h, algae

12.2. Persistence and degradability

Propellant upon entering the atmosphere quickly evaporates and degrades photo-chemically.

12.3. Bioaccumulative potential

The bioaccumulation of the mixture or components is not expected.

12.4. Mobility in soil

Petroleum hydrocarbons are not water soluble and do not move in soil. Propellant is a gas, parameter not applicable.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

Oil products may cause a film on water surface which may inhibit the oxygen exchange.

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

160504 Gases in pressure containers (including halons) containing dangerous substances.

Container and packaging waste

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

Waste codes

150101 Paper and cardboard container

If the container is free from product residue

150104 Metal packaging

If the container contains product residue

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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

14.3. Transport hazard class(-es)

ADR/RID/ADN 2.1

IMDG 2.1

ICAO/IATA class/ section 2.1

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

EMS F-D, S-U

Store and transport in upright position. Transport on vehicles where the load space is not separated from the driver's compartment. Ensure that the product transportation personnel is informed about the potential hazards loading/ unloading and safety procedures in case of accidental leakage or emergency.

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.

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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.

Commission Regulation (EU) No 944/2013 (2 October 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.

Regulation (EC) No. 648/2004 (31 March, 2004) of the European Parliament and of the Council concerning detergents.

15. Chemical safety assessment

No data on chemical safety assessment

16. OTHER INFORMATION

Developed on: October, 2006

Developer of the initial data safety sheet: EMPACK Regulatory Department

Developed by: 23 May, 2014, SIA "Retorte"

Sections 1-15 reviewed in accordance to EU laws and regulations.

Chemical material effect descriptions (R phrases) and hazard labels (H label) in full:

R12 Extremely flammable.

H220 Extremely flammable gas.

H222 Extremely flammable aerosol.

H229 Container under pressure: may explode if heated.

Flam. Gas 1 Flammable gases, Hazard Category 1

Press. Gas Pressurized gas

Aerosol 1 Aerosols, Hazard Category 1

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

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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