(Krown) **HEAVY DUTY SILICONE - AEROSOL**

Product code:

Issued on: 18.08.2014 Version 1.1

1. MATERIAL / MIXTURE AND ORGANIZATION / COMPANY **IDENTIFICATION**

1.1. Product identification

KROWN HEAVY DUTY SILICONE - AEROSOL

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

Lubricant for window and door mechanisms and squeaking prevention

1.3. Information about the supplier of the safety data sheet

Manufacturer: SIA KROWN FACTORY

Ganību dambis 25f, Riga, LV 1005, Latvia

Telephone: +371 67491330 Fax: +371 67491331

E-mail of the

competent person: info@krown.com www.krown.com Website:

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 the Regulation (EC) No. 1272/2008

Aerosol 1; H222, H229 Physical and chemical

Human health Asp. Tox.1; H304. Skin Irrit.2; H315. Eye Irrit.2; H319.STOT SE3; H336

Environment Aquatic Chronic 1; H410

2.2. Label elements

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

Hazard pictograms:



Signal word:

Danger

Hazard statements:

H222 Extremely flammable aerosol

H229 Pressurized container: may burst if heated H304 May be fatal, if swallowed or enters airways

H315 Irritates skin

H319 Causes serious eye damage.

H336 May cause drowsiness or dizziness.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

(Krown) HEAVY DUTY SILICONE - AEROSOL

Product code:

Issued on: 18.08.2014 Version 1.1

P102 Keep away from children

P210 Keep away from heat, hot surfaces, sparks, open flame and other

ignition. No smoking.

P211 Do not spray on open flame or other ignition source. P240 Ground/bound container and receiving equipment.

P251 Do not pierce or burn, even after use.

P260 Do not breathe vapors/spray.

P262 Do not get in eyes, on skin or clothing.

P273 Avoid release to environment.

P410+412 Protect form sunlight. Do not expose to temperatures exceeding

50°C/122°F

P501 Dispose of the content/container in accordance with local regulation.

Contents: heptane, petroleum distillates, hydrotreated light fractions. Special labels in accordance to Regulations 648/2004/EC and (EC) 907/2006:

Contains: > 30% aliphatic hydrocarbons

2.3. Other hazards

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Composition

Does not apply.

3.2. Mixtures

Names of components	CAS No.	EINECS No.	RERACH registration No.	Concentration, % of weight	Classification
Heptane	142-82-5	205-563-8	No registration data	15-40%	F; R11 Xn; R65 Xi; R38 R67 N; R50-53
					H400 Aquatic Chronic 1; H410
Petroleum distillates, hydrotreated light fractions; non-standard kerosene	64742-47- 8	265-149-8	01- 2119484819- 18-0010	10-30%	Xn; R65. Sign P Asp. Tox. 1; H304. Sign P
Polidimethyltoxisiloxane	63148-62- 9	-	No registration data	10-30%	Xi;R36 Eye Irrit. 2; H319
Propane	74-98-6	200-827-9	01-2119486944- 21	10-30%	F+;R12
Isobutane (contains less than 0.1% butadiene (203-450-8))	75-28-5	200-857-2	No registration data	10-30%	F+;R12

Additional information:

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

(Krown) HEAVY DUTY SILICONE - AEROSOL

Product code:

Issued on: 18.08.2014 Version 1.1

4. FIRST AID MEASURES

4.1. Description of first aid measures

General information

Inhalation

Move the victim into fresh air. If the victim doesn't breath, perform mouth to mouth respiration. If difficulties breathing, perform respiration with oxygen. Seek medical attention. After the effects of this product, do not give adrenalin, epinephrine or similar medication.

Eve contact

Immediately rinse with large amount of water. 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

Immediately remove the contaminated clothing. Immediately wash with soap and warm water.

To treat frostbite, submerge the affected area in warm water until skin warms and becomes pink. IMMEDIATELY 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. If vomiting occurs, keep head low to keep the stomach content from entering lungs. 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

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

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

Carbon dioxide, dry chemicals, foam, 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

Extremely flammable. Spray bottles are under pressure and can explode, when heated.

Product's vapour is heavier than air and travels along the ground surface. Product's vapour in mixture with air may ignite from sparks, flames or other sources of ignition. Leaks may cause fire or explosion hazard. Broken spray bottles can burst and endanger personnel. In contact with flame or very hot metal surfaces may decompose into toxic and corrosive materials. Thermal decomposition products are carbon oxides (CO, CO₂).

(Krown) HEAVY DUTY SILICONE - AEROSOL

Product code:

Issued on: 18.08.2014 Version 1.1

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

Large spills or leaks from spray bottles are unlikely. In case of emergency, ventilate enclosed spaces and disperse gas on floor level with forced air ventilation. Expel vapour. Do not smoke or run internal combustion engines. Put out the flames and turn off heating elements.

6.2. Environmental precautions

Prevent further leaks or spills, if this can be done safely. Immediately inform the responsible environmental services about the accident. Prevent release to the environment.

6.3. Methods and material for containment and cleaning up

Limit access to area until cleanup is finished. All cleanup personnel must wear suitable personal protective equipment. Extinguish all sources of ignition. Use suitable ventilation. Ventilate enclosed areas. Do not use flammable materials like saw dust as absorbents. Use non-sparking tools. Collect the material for utilization. Inform the competent state institutions, if the leak is considerable or may leave adverse effects on the environment.

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

All cleanup personnel must wear suitable personal protective equipment. and certified self-contained breathing apparatuses. Use protective goggles and impervious gloves. Spilled product can be slippery.

7.2. Conditions for safe storage, including any incompatibilities

Keep in cool, dry, well ventilated areas in sealed containers. Keep away from non-compatible and flammable materials.

7.3. Specific end use(s)

Lubricant for window and door mechanisms and squeaking prevention.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. Exposure limit values

Latvia: Occupational exposure limits

Name of the component	8h OEL mg/m ³	8h OEL ppm	15min OEL mg/m ³	15min OEL ppm	Notes
n-heptane (CAS 142-82-5)	350	85	2085	500	
Propane	100	-	300	-	

HEAVY DUTY SILICONE - AEROSOL (Krown)

Product code:

Issued on: 18.08.2014 Version 1.1

(CAS 74-98-6) OEL – occupational exposure limit values in accordance to Annex 1, Cabinet of Ministers' Regulations No. 325 of 15.05.2007

EU: Occupational exposure limit values

Name of the component	8h limit value	
n-heptane (CAS 142-82-5)	500 ppm	2085 mg/m ³

Estonia: Occupational Exposure Limits of Hazardous Substances.

(Annex of Regulation No. 293 of 18 September, 2001)

Name of the component	STEL mg/m ³	TWA
n-Heptane (CAS 142-82-5)		820mg/m^3
Propane (CAS 74-98-6)		$1800 \mathrm{mg/m^3}$

Lithuania: Limit Values for Chemical Substances, General Requirements (Hygiene Norm HN 23:2007)

Name of the component	STEL mg/m ³	TWA
n-Heptane (CAS 142-82-5)	3128mg/m ³	2085mg/m^3

STEL – Short term exposure limit

TWA – Time-weighted average

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

Derived No Effect Levels (DNEL)

n-Heptane, CAS 142-82-5

Derived No Effect Level DNEL

Name of the component	Туре	Effect	Value	Manifestation
n-Heptane (CAS 142-82-5)	Contractors	Skin	300 mg/kg/day	Long-term systemic exposure
n-Heptane (CAS 142-82-5)	Contractors	Inhalation	2085 mg/m ³	Long-term systemic exposure

Prescribed No Effect Concentrations (PNECs)

Data not available

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: Use local exhaust ventilation to retain the concentrations in workplace under occupational exposure limits, if unprotected persons are involved.

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 chemical protective goggles and side guards (EN166).

Hand protection: Use viton, butyl rubber PVC, neoprene or nitril protective gloves (EN 374), protecting against the effects of low temperatures.

Body protection: Use work clothing (for example, protective footwear and long-sleeved protective clothing corresponding to requirements of EN ISO 20345), protecting against the effects of low temperatures.

Respiratory protection: Not required for brief vapour inhalation or if exhaust ventilation is in place. In case of insufficient ventilation use suitable respiratory equipment with gas filter A or AX (LVS EN 141), identification colour – brown. In enclosed spaces use respirator with independent air supply.

(Krown) HEAVY DUTY SILICONE - AEROSOL

Product code:

Issued on: 18.08.2014 Version 1.1

Hygienic measures: Always comply with correct norms of personal hygiene, for example, wash after handling the material and before eating, drinking and/or smoking. Regularly wash work clothing and clean personal protective equipment to decontaminate it. Do not eat, drink or smoke, while handling the material. Wash contaminated clothing before reuse. Private clothing and work clothing should be kept separately.

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/ clear liquid b) odour Hydrocarbons c) odour threshold Data not available d) pH Not applicable e) melting / freezing point -135 °C to -90 °C

f) boiling temperature and boiling from 93 °C (for liquid)

temperature range

g) flash temperature > -104 °C (for liquid)

> - 27 °C (for carrier gas)

i) flammability (for solids, gasses)

Data not available

j) upper/ lower flammability or explosive 2.1-9.5

limit

h) evaporation rate (water=1) <1

k) vapor pressure (mm Hg) 50-60@20 °C

1) vapor density (air=1) >1

m) relative density 0.77@25 °C – for liquid

0.73@25 °C – for aerosol

n) solubility in water Minor

o) partition coefficient: n-octanol/water Data not available

p) ignition temperature 450 °C

q) degradation temperature
pata not available
pata not available
s) explosion hazard
pata not available
Data not available
t) oxidation properties
Data not available

9.2. Other information

GOS content 59% of the weight (623g/l, 3.84 lbs/gal)

10. STABILITY AND REACTIVITY

10.1. Reactivity

No hazardous reactions

10.2. Chemical stability

Stable under recommended storage and handling conditions.

10.3. Possibility of hazardous reactions

No data available

(Krown) HEAVY DUTY SILICONE - AEROSOL

Product code:

Issued on: 18.08.2014 Version 1.1

10.4. Conditions to avoid

Keep away from heat sources, open flame and prevent electrostatic discharge. High temperature may cause thermal decomposition. Do not expose to temperatures exceeding 50°C/122°F.

10.5. Incompatible materials

Powerful oxidizers.

10.6. Hazardous decomposition products

Carbonic monoxide and dioxide, various hydrocarbons.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological information

a) acute toxicity

This product is harmful if inhaled or swallowed. Due to the physical condition of the product, ingestion is unlikely. In ingested, the product may be absorbed and cause CNS depression. Inhalation of vapours causes nose, throat and respiratory system irritation, with cough, wheezing, dizziness, headache, sleepiness, nausea and vomiting. Inhalation in higher concentrations may cause central nervous system depression and unconsciousness. High vapour concentrations reduce oxygen availability for breathing, which may cause suffocation.

Component toxicity

n-Heptane, CAS No. 142-82-5

Acute toxicity

Harmful – if digested, may cause lung damage

LD50 >2000mg/kg (rat, ingestion)

LD50 – 3000mg/kg (rabbit, through skin)

Petroleum distillates, hydrotreated light fractions; nonstandard kerosene, CAS No. 64742-47-8

LD50 >5000mg/kg (rat, ingestion)

LD50 – 3400mg/kg (rabbit, through skin)

LD50 >5mg/l / 4h (rat, inhalation)

b) caustic irritation

Direct contact with the skin may cause mild to moderate irritation and frostbite. Symptoms may include redness, pain, numbness, tingling and itching.

c) serious eye damage/irritation

Direct contact with the skin may cause mild to moderate irritation and frostbite. Symptoms may include redness, pain, numbness, tingling and itching.

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.

f) carcinogenicity

No data available regarding carcinogenic effect of the mixture.

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 toxic effect of the mixture.

i) specific target organ toxicity, repeated exposure

May cause skin de-oiling and dermatitis. Intentional concentrated inhalation of this product may be harmful or lethal.

j) hazards caused by inhalation

(Krown) HEAVY DUTY SILICONE - AEROSOL

Product code:

Issued on: 18.08.2014 Version 1.1 No data available regarding inhalation hazards of the mixture.

Other hazards

May increase the effects of other organic solvents.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Highly toxic to aquatic organisms, may cause long-term adverse effects on the aquatic environment.

Component toxicity

n-Heptane, CAS No. 142-82-5

Acute toxicity

Fish

LC50 (96 h) 375 mg/l (Tilapia mossambica) Mozambique Tilapia

12.2. Persistence and degradability

The product is considered to slowly biologically degrade.

12.3. Bioaccumulative potential

Expected bioaccumulation in aquatic organisms.

Degradation coefficient in n-octanol – water system (log Kow): n-Heptane 4.66

12.4. Mobility in soil

The mixture does not mix with water and travel across water surface.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

The mixture contains volatile organic components, which have photochemical ozone depletion potential.

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 l 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.

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

(Krown) HEAVY DUTY SILICONE - AEROSOL

Product code:

Issued on: 18.08.2014 Version 1.1

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 Class 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

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

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.

(Krown) HEAVY DUTY SILICONE - AEROSOL

Product code:

Issued on: 18.08.2014 Version 1.1

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

F+; R12 Xi; R38 N; R50/53 R67

Labelling in accordance to 1999/45/EEC

Hazard labels







Extremely flammable

Irritating

Environmental hazard

Risk statements

R12	Extremely flammable
R38	Irritating to skin

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

environment

R67 Vapours may cause drowsiness and dizziness

Safety phrases

es	
S2	Keep out of the reach of children.
S9	Keep container in well ventilated place
S16	Keep away from sources of ignition – No smoking
S23	Do not breathe fumes or aerosols.
S24	Avoid contact with skin.
S29/56	Do not empty into drains. Dispose of this material and its container at
	hazardous or special waste collection point.
S36/37/39	Wear suitable protective clothing, protective gloves and eye or face protection.
S51	Use only in well ventilated areas.
S61	Avoid release into environment. Refer to special instruction or safety data
	sheets.
S46	If swallowed seek medical attention 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.

15. Chemical safety assessment

No data on chemical safety assessment

16. OTHER INFORMATION

Developed on: 18 August, 2014 Developed by: SIA "Retorte"

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:

R11 Flammable

R65 Harmful: may cause lung damage, if swallowed.

R38 Irritating to skin.

(Krown) HEAVY DUTY SILICONE - AEROSOL

Product code:

Issued on: 18.08.2014 Version 1.1

R67 Vapours may cause drowsiness and dizziness

N50-53 Extremely toxic to aquatic organisms, may cause long term adverse effects in aquatic

environment

R36 Irritates eyes.

R12 Extremely flammable.

Mark P The material is not classified as carcinogenic or mutagenic, if it can be proven that the

substance contains less than 0.1 weight % benzol (Einecs No. 200-753-7) admixtures.

This note refers only to some complex refinery products indicated in Part 3.

Flam.Liq.2 Flammable liquid, Hazard Category 2
H225 Highly flammable liquid and vapour
Asp.Tox.1 Aspiration toxicity, Hazard Category 1
H304 May be fatal if swallowed and enters airways

Skin Irrit. 2 Skin irritation, Hazard Category 2

H315 Irritates skin

STOT SRE 3 Specific target organ toxicity – single exposure, Hazard Category 3

H336 May cause drowsiness or dizziness

Aquatic Acute 1 Material toxic to aquatic environment, Acute Hazard Category 1

H400 Very toxic to aquatic life

Aguatic Chronic 1 Material toxic to aquatic environment, Chronic Hazard Category 1

H410 Very toxic to aquatic life with long lasting effects

Eye Irrit. 2 Eye irritation, Hazard Category 2 H319 Causes serious eye damage.

Flam.Gas 1 Flammable gases, Hazard Category 1

H220 Extremely flammable gas

Press. Gas Pressurized gas

H229 Pressurized container: may burst if heated

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.

(Krown) HEAVY DUTY SILICONE - AEROSOL

(Krown)
Product code:

Issued on: 18.08.2014 Version 1.1

End of safety data sheet