

Date: January 23<sup>rd</sup>, 2008

Former date: -

<b>1.</b>	<b>IDENTIFICATION OF THE CHEMICAL AND OF THE MANUFACTURER, IMPORTER OR OTHER UNDERTAKING</b>
<b>1.1</b>	<b>Identification of the substance or preparation</b>
	<b>Trade name</b> RVS Technology + MC Chain Lube
	<b>Code of the preparation</b> -
<b>1.2</b>	<b>Use of the chemical</b>
<b>1.2.1</b>	<b>The intended uses of the chemical</b> Product for restoration and modification of metal friction surfaces of drive chains. Reduces friction, prevents wear and corrosion; modifies friction surface structure, replaces wet and removes rust; penetrates to small pores; leaves a lubricating protective film on the modified surface.
<b>1.2.2</b>	<b>Standard industrial classification (SIC)</b> 232
<b>1.2.3</b>	<b>Use categories (UC62)</b> 55
<b>1.2.4</b>	<b>The chemical can be used by the general public</b> <input checked="" type="checkbox"/>
<b>1.2.5</b>	<b>The chemical is used by the general public only</b> <input type="checkbox"/>
<b>1.3</b>	<b>Identification of the manufacturer, importer or other undertaking</b>
<b>1.3.1</b>	<b>Manufacturer, importer, other undertaking</b> Oy RVS Technology Ltd.
<b>1.3.2</b>	<b>Contact information:</b>
	<b>Street address</b> Pultitie 6
	<b>Postcode and post office</b> 00880 Helsinki
	<b>Post-office box</b>
	<b>Postcode and post office</b>
	<b>Telephone number</b> +358-(0)9-7599 010
	<b>Telefax</b> +358-(0)9-7599 0111
	<b>Y code</b> 2118574-5
<b>1.3.3</b>	<b>Information on foreign manufacturer</b>
<b>1.4</b>	<b>Emergency telephone</b>
<b>1.4.1</b>	<b>Telephone number, name and address</b> +358-(0)9-2414 392 or +358-(0)9-4711, Helsinki University Central Hospital, Poison Information Centre, Stenbäckinkatu 11, 00920 Helsinki, Finland +358-40-562 0272, Oy RVS Technology Ltd., Finland

Trade name: RVS Technology + MC Chain Lube

Date: January 23<sup>rd</sup>, 2008

Former date: -

2. COMPOSITION AND INFORMATION ON INGREDIENTS			
2.1 Hazardous ingredients			
2.1.1 CAS number or other code	2.1.2 Name of the ingredient	2.1.3 Concentration	2.1.4 Warning symbol, R phrases and other data on the ingredient
64742-48-9	Naphtha (crude petroleum) treated with hydrogen, heavy	20 – 25 %	F; R11 Xn; R65 Contains > 0.1 % vol. of benzene, < 5 % of n-hexane, and > 0.1 % vol. of aromates
68037-01-4/ 101316-72-7/ 72623-87-1	Basic oil - unspecified	50 – 90 %	- DMSO < 3 % (IP346)
****	Polyalphaolephine-based lubrication grease with silica thickener	0.5 – 3 %	-
	Other components are not regarded as hazardous according to the EU hazardous component directives		

2.1.5 There has been a request for confidentiality of a substance according to Annex 3 of the decree

2.1.6 A substance not dangerous has been indicated as confidential

2.1.7 Other information

Description: Mixture of polyalphaolephine-based lubrication grease with silica thickener, natural minerals and additives on basis of synthetic oil.

### 3. HAZARDS IDENTIFICATION

HUMAN HEALTH HAZARDS: The product has not been classified as hazardous. Oil mist irritates eyes and respiratory tract. A long-term or repeated skin contact may desiccate and irritate the skin and cause skin inflammation.

BURN AND EXPLOSION HAZARDS: Flammable.

ENVIRONMENTAL HAZARDS: Danger or pollution of soil and groundwater. Not readily biodegradable. Bioaccumulation is possible.

See also 5, 11, and 12.

### 4. FIRST AID MEASURES

4.1 Special instructions

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4.2 Inhalation

A person that has inhaled vapour is removed from predisposition, kept warm and in rest. Give oxygen or mouth-to-mouth resuscitation if needed. Get medical assistance after significant predisposition.

4.3 Skin contact

Remove contaminated clothing and wash affected skin with soap and copious quantities of water. If persistent irritation occurs, obtain medical attention.

4.4 Eye contact

Flush eyes immediately with copious quantities of water, including under eyelids, for 15 minutes. If persistent irritation occurs, obtain medical attention.

4.5 Ingestion

Wash out mouth with water and obtain medical attention. DO NOT INDUCE VOMITING.

### 5. FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media

Foam and dry chemical powder. Carbon dioxide (CO<sub>2</sub>), sand or earth for small fires.

5.2 Extinguishing media which must not be used for safety reasons

Use of Halon extinguisher should be avoided for environmental reasons.

**Trade name:** RVS Technology + MC Chain Lube

**Date:** January 23<sup>rd</sup>, 2008

**Former date:** -

**5.3 Special exposure hazards in a fire**

Water or foam may cause effervescence. Use water for cooling containers disposed to fire. Foam-water may be used for flushing spillages away from endangered zones. Prevent the extinguishing and dilution water from entering waterways and drinking water systems.

**5.4 Special protective equipment for fire-fighters**

Breathing apparatus with pressurised air and full protection clothing inside buildings.

**5.5 Other instructions**

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**6. ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions**

Unauthorised persons must be evacuated from the area

See Handling at 7.1.

See Personal protection at 8.3.

**6.2 Environmental precautions**

Prevent from spreading or entering into drain, ditches, groundwater, rivers, and lakes. Inform local authorities of the accident. Stop the leak if possible without risks.

**6.3 Methods for cleaning up**

Prevent the leak to spread and absorb in sawdust impregnated with fire preventing agent, diatomite, or other applicable material. Collect it with a shovel. Dispose waste containing the product as indicated in Clause 13.

**6.4 Other instructions**

Inform the local authorities of an accident immediately.

**7. HANDLING AND STORAGE**

**7.1 Handling**

Isolate from open fire, hot surfaces and ignition sources. When handling product in drums, safety footwear and gloves should be worn and proper handling and protection equipment should be used in order to prevent, among other things, repeated or continuous skin contact. Prevent spillages. If needed, use personal protection devices.

**7.2 Storage**

Keep tightly closed in cool, dry, well-ventilated place in the position specified by the package markings (vertical position) in the original packing. Avoid direct sunlight, heat sources, and strong oxidising agents. Take precautions to prevent the product to get to sewer systems, soil and waterways.

Do not store consumer packages outdoors.

**7.3 Specific use(s)**

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Exposure limit values**

**8.1.1 HTP values**

Oil mist in the air of the working zone 5 mg/m<sup>3</sup> (8 h)

**8.1.2 Other limit values**

Predisposition control method: Oil mist: NIOSH Method 5026, SFS-EN 689.

**8.1.3 Limit values in other countries**

**8.2 Exposure controls**

**8.2.1 Occupational exposure controls**

Organise appropriate ventilation. Avoid repeated or prolonged skin contact and oil mist inhalation. Wear personal protection and/or local ventilation if needed.

Wash hands before break and immediately after handling the product.

**8.2.1.1 Respiratory protection**

Not normally required if ventilation is sufficient.

**8.2.1.2 Hand protection**

In repeated contact nitrile rubber or PVC gloves. Replace the gloves often enough. Wash your hands with soap and water after every contact.

**8.2.1.3 Eye protection**

Wear safety glasses if splashes are likely to occur. Use full face shield if needed.

**Trade name:** RVS Technology + MC Chain Lube

**Date:** January 23<sup>rd</sup>, 2008

**Former date:** -

**8.2.1.4 Skin protection**  
Avoid repeated skin contact. Wear protective clothing if needed. Launder protective clothing and undergarments regularly.

**8.2.2 Environmental exposure controls**  
Do not allow leakage to the soil, waterways or sewer systems.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 General information (physical state, colour and odour)**  
Light-yellowish oil-like liquid, in which minerals may precipitate on the bottom during storage. The product must be shaken properly before use after long-time storage for the particles to spread in the liquid homogeneously.

### **9.2 Important health, safety and environmental information**

**9.2.1 pH**

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**9.2.2 Boiling point/boiling range**  
> 300 °C (572 °F)

**9.2.3 Flash point**  
> 210°C (410 °F)

**9.2.4 Flammability (solid, gas)**

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### **9.2.5 Explosive properties**

**9.2.5.1 Lower explosive limit**  
Information not available.

**9.2.5.2 Upper explosive limit**  
Information not available.

**9.2.6 Oxidising properties**

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**9.2.7 Vapour pressure**  
> 2,0 Pa (20 °C (68 °F))

**9.2.8 Relative density**  
830-950 kg/m<sup>3</sup> (15 °C (59 °F))

### **9.2.9 Solubility**

**9.2.9.1 Water solubility**  
not soluble

**9.2.9.2 Fat solubility (solvent-oil to be specified)**  
Information not available.

**9.2.10 Partition coefficient: n-octanol/water**  
Information not available.

**9.2.11 Viscosity**  
Information not available.

**9.2.12 Vapour density**  
Information not available.

**9.2.13 Evaporation rate**  
Information not available.

**9.3 Other information**

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## **10. STABILITY AND REACTIVITY**

**10.1 Conditions to avoid**  
Extremes of temperature and direct sunlight

**10.2 Materials to avoid**  
Avoid strong acids and oxidising materials.

**10.3 Hazardous decomposition products**  
Carbon monoxide, elemental oxides, metal oxides.

## **11. TOXICOLOGICAL INFORMATION**

**11.1 Acute toxicity**  
Toxicological data have not been determined specifically for this product. Information given is based on the knowledge of the components and the information given by the manufacturers of the products of synthetic oil basis used for the suspension of this product.  
Dermal: LD50 above 2000 mg/kg

**Trade name:** RVS Technology + MC Chain Lube

**Date:** January 23<sup>rd</sup>, 2008

**Former date:** -

Oral: LD50 above 2000 mg/kg  
Inhalation: Information not available.

**11.2 Irritation and corrosiveness**

Slightly irritant; skin, (estimation)  
Slightly irritant; eyes, (estimation)  
Inhalation of mists may cause slight irritation of the respiratory tracks.

**11.3 Sensitisation**

Information not available.

**11.4 Sub-acute, sub-chronic and prolonged toxicity**

Information not available.

**11.5 Empirical data on effects on humans**

Prolonged and/or repeated skin contact may cause defatting of the skin, which may lead to skin irritation and possibly cause dermatitis, especially under conditions of poor personal hygiene. Oil mist may irritate eyes and respiratory tracts.

**11.6 Other information on health effects**

Toxicological data are based on tests made with corresponding products and components.  
Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal. All used oil should be handled with caution and skin contact should be avoided as far as possible.

**12. ECOLOGICAL INFORMATION**

**12.1 Ecotoxicity**

**12.1.1 Aquatic toxicity**

The product must not be spilled to waterways.

**12.1.2 Toxicity to other organisms**

Information not available.

**12.2 Mobility**

Liquid under most environmental conditions and does not evaporate from soil or water. The product is lighter than water, and floats on it. Not soluble in water. If the product enters soil, major part of it will adsorb to soil particles but some of it may reach the groundwater surface. In anaerobic circumstances, the degradation of the product is a very slow process. Basic oil hydrocarbons may be adsorbed to organic material of soil or sediment (log Kow > 6).

**12.3 Persistence and degradability**

**12.3.1 Biodegradation**

The product contains components that may persist in the environment.

**12.3.2 Chemical degradation**

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**12.4 Bioaccumulative potential**

Bioaccumulation is possible

**12.5 Other adverse effects**

Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products.

**13. DISPOSAL CONSIDERATIONS**

Waste containing the product is hazardous. To be disposed in accordance with the appropriate legislation and instructions of the appropriate authorities. When handling the waste, take into account the dangers caused by the product and take care of the necessary safety precautions, warning signs, and obligation of information.

**14. TRANSPORT INFORMATION**

**14.1 UN number**

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**14.2 Packing group**

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**14.3 Land transport**

**14.3.1 Transport class**

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**14.3.2 Risk code**

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**14.3.3 Name according to bill of freight**

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**Trade name:** RVS Technology + MC Chain Lube

**Date:** January 23<sup>rd</sup>, 2008

**Former date:** -

**14.3.4 Other information**

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**14.4 Sea transport**

**14.4.1 IMDG class**

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**14.4.2 Correct technical name**

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**14.4.3 Other information**

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**14.5 Air transport**

**14.5.1 ICAO/IATA class**

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**14.5.2 Correct technical name**

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**14.5.3 Other information**

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**15. REGULATORY INFORMATION**

**15.1 Information on the warning label**

**15.1.1 Letter code of the warning symbol and indications of danger for the preparation**

F Flammable

Xn Harmful

**15.1.2 Names of the ingredients given on the warning label**

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**15.1.3 R phrases**

R11 Highly flammable

R65 Harmful: may cause lung damage if swallowed

**15.1.4 S phrases**

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**15.1.5 Special regulations on certain preparations**

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**15.2 National regulations**

All the components are listed in EINECS or freed.

**16. OTHER INFORMATION**

**16.1 List of the relevant R phrases**

R11 Highly flammable

R65 Harmful: may cause lung damage if swallowed

**16.2 Training advice**

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**16.3 Restrictions on use**

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**16.4 Further information**

This information has to be available for all those who handle this product. The sheet is based on the current information and has been meant to respond to the health, safety, and environmental questions related to the product. This sheet is not to be given as a guarantee of any property of the product.

**16.5 Sources of key data used**

Estimation made on the basis of the information on the components. Pentisol Ky, Finland. Neste Oil Oyj, Finland. Axel Christiernsson Ab, Nol, Sweden. Research Institute of Geology, Finland.

**16.6 Information which has been added, deleted or revised**

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