

Date: January 23rd, 2008

Former date: -

1. IDENTIFICATION OF THE CHEMICAL AND OF THE MANUFACTURER, IMPORTER OR OTHER UNDERTAKING			
1.1 Identification of the substance or preparation			
Trade name RVS Technology Engine Treatment (oil in the bottle)			
Code of the preparation -			
1.2 Use of the chemical			
1.2.1 The intended uses of the chemical Part of a product for restoration and modification of metal friction surfaces of 4-stroke internal combustion engines			
1.2.2	Standard industrial classification (SIC)	232	
1.2.3	Use categories (UC62)	55	
1.2.4	The chemical can be used by the general public	<input checked="" type="checkbox"/>	
1.2.5	The chemical is used by the general public only	<input type="checkbox"/>	
1.3 Identification of the manufacturer, importer or other undertaking			
1.3.1	Manufacturer, importer, other undertaking	Oy RVS Technology Ltd.	
1.3.2	Contact information:		
	Street address	Pultitie 6	
	Postcode and post office	00880 Helsinki	
	Post-office box		
	Postcode and post office		
	Telephone number	+358-(0)9-7599 010	
	Telefax	+358-(0)9-7599 0111	
	Y code	2118574-5	
1.3.3	Information on foreign manufacturer		
1.4 Emergency telephone			
1.4.1	Telephone number, name and address	+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	
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
74869-22-0	Mineral oil	100 %	Exposure limit values – see 8.1. Contains <3% DMSO extract
2.1.5	There has been a request for confidentiality of a substance according to Annex 3 of the decree	<input type="checkbox"/>	
2.1.6	A substance not dangerous has been indicated as confidential	<input type="checkbox"/>	
2.1.7	Other information	-	
3. HAZARDS IDENTIFICATION			
HUMAN HEALTH HAZARDS: No special hazards in normal application conditions. Contains mineral oil that has an exposure limit value in air. A long-term or repeated skin contact may cause skin inflammation. Used oil may contain harmful impurities.			

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BURN AND EXPLOSION HAZARDS: Not classified as flammable, but will burn.

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

See also 5, 11, and 12.

4.	FIRST AID MEASURES
4.1	Special instructions -
4.2	Inhalation A person that has been predisposed, shall be removed to fresh air. In case of prolonged symptoms, obtain medical attention.
4.3	Skin contact Remove contaminated clothing and wash affected skin with soap and water. If persistent irritation occurs, obtain medical attention. If the product gets injected under the skin with high pressure, obtain medical attention immediately.
4.4	Eye contact Flush eyes with copious quantities of water. If persistent irritation occurs, obtain medical attention.
4.5	Ingestion Wash out mouth with water and obtain medical attention. DO NOT INDUCE VOMITING. If no nausea occurs, the patient may be given 1 to 2 spoons of cream.
4.6	Information for doctors or other first aid personnel Treatment in accordance with the symptoms. In case of ingestion, aspiration to the lungs may cause mortal chemical pneumonia. See Empirical data on effects on humans, 11.5.
5.	FIRE-FIGHTING MEASURES
5.1	Suitable extinguishing media Foam and dry chemical powder. Carbon dioxide (CO ₂), sand or earth for small fires.
5.2	Extinguishing media which must not be used for safety reasons Must not be extinguished with a heavy water jet.
5.3	Special exposure hazards in a fire -
5.4	Special protective equipment for fire-fighters Applicable protection equipment. In case of fires inside a building, breathing apparatus is to be worn.
5.5	Other instructions -
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 8.2.
6.2	Environmental precautions Prevent from spreading or entering into drain, ditches, groundwater, rivers, and lakes by using sand, earth, or other appropriate barriers and absorption materials. Inform local authorities of the accident. Stop the leak if possible without risks.
6.3	Methods for cleaning up Absorb leakage into sand, earth, or other applicable absorbent. The absorbent shall be collected in an applicable container with due markings for further disposal. To be disposed in accordance with the local administrative instructions. See Disposal consideration, 13.
6.4	Other instructions -
7.	HANDLING AND STORAGE
7.1	Handling When handling product in drums, safety footwear should be worn and proper handling and protection equipment should be used. Prevent spillages.
7.2	Storage Keep in cool, dry, well-ventilated place. Use labelled and closable containers. Avoid direct sunlight, heat sources, and strong oxidising agents. Suitable container materials: HD polyethylene, steel Non-suitable container materials: PVC

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Polyethylene containers shall not be predisposed to high temperature due to possible deformation. Do not store consumer packages outdoors.

7.3 Specific use(s)
Used in connection with RVS Technology Gel.

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/m³ (8 h)

8.1.2 Other limit values

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8.1.3 Limit values in other countries

8.2 Exposure controls

8.2.1 Occupational exposure controls

If possible, use the product in closed systems and organise appropriate ventilation. Avoid repeated or prolonged skin contact and oil mist inhalation. Wear personal protection if needed. Wash hands before eating, drinking, smoking, and using WC.

8.2.1.1 Respiratory protection

Normally not required. If oil mist cannot be controlled, use a respirator fitted with a combined A2/P2 filter (for organic gases and solvent vapours/particles).

8.2.1.2 Hand protection

Nitrile rubber or PVC gloves.

8.2.1.3 Eye protection

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

8.2.1.4 Skin protection

Avoid all kinds of skin contact. Wear protective clothing if needed. Launder protective clothing and undergarments regularly.

8.2.2 Environmental exposure controls

Take care of the condition of containers and other equipment. Prepare for possible spillage by collecting basins, pavement of the company territory and embankments.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 General information (physical state, colour and odour)

Yellowish or brown oil-like liquid.

9.2 Important health, safety and environmental information

9.2.1 pH

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9.2.2 Boiling point/boiling range

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9.2.3 Flash point

150 °C (302 °F) (COC)

9.2.4 Flammability (solid, gas)

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9.2.5 Explosive properties

9.2.5.1 Lower explosive limit

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9.2.5.2 Upper explosive limit

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9.2.6 Oxidising properties

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9.2.7 Vapour pressure

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9.2.8 Relative density

886-904 kg/m³ (15 °C (59 °F))

9.2.9 Solubility

9.2.9.1 Water solubility

not soluble

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9.2.9.2 Fat solubility (solvent-oil, to be specified)

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9.2.9.3 Solubility in other solvents

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9.2.10 Partition coefficient: n-octanol/water

LogP_{ow} > 4, (estimation)

9.2.11 Viscosity

100–460 cSt (40 °C (104 °F))

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

Strong oxidisers

10.3 Hazardous decomposition products

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11. TOXICOLOGICAL INFORMATION

11.1 Acute toxicity

Toxicological data have not been determined specifically for this product. Information given is based on the information given by the manufacturers of the products of mineral oil basis used for the product.

Dermal: LD₅₀ above 4 ml/kg; practically low toxicity

Oral: LD₅₀ above 5 ml/kg; practically low toxicity

Inhalation: no danger in normal using conditions.

11.2 Irritation and corrosiveness

Supposed to be slightly irritant; skin, eyes.

Inhalation of oil mist may cause slight irritation of the respiratory tracks.

11.3 Sensitisation

Not supposed to be allergenic to skin.

11.4 Sub-acute, sub-chronic and prolonged toxicity

The base oil in the product does not seem to be carcinogenic on basis of skin tests carried out on animals.

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.

11.6 Other information on health effects

Used oils may contain harmful impurities that have accumulated in the product during its 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

LL₅₀ fish: > 1000 mg/l (96h, *Onocorhynchus mykiss*); practically low toxicity

IL50 alga: > 1000 mg/l (96h, *Scenedesmus subspicatus*); practically low toxicity

NOEL fish: 1000–5000 mg/l (*Pimephales promelas*); practically low toxicity

NOEL water flea: 550–5000 mg/l (*Ceriodaphnia dubia*); practically low toxicity

12.1.2 Toxicity to other organisms

Information not available.

12.2 Mobility

Liquid under most environmental conditions. The product is lighter than water, and floats on it. Poorly soluble blend. If the product enters soil, it will adsorb to soil particles and it will thus not be transported.

12.3 Persistence and degradability

12.3.1 Biodegradation

CO₂ formation (OECD 301B): 5–26% (28 days); not readily biodegradable.

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Micro organisms may degrade → supposed to be naturally biodegradable.

12.3.2 Chemical degradation

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12.4 Bioaccumulative potential

log K_{ow} 4→6; Bioaccumulation is possible

12.5 Other adverse effects

May cause dirtying of aquatic fauna.

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

Not classified as dangerous in transport.

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

-

14.3.3 Name according to bill of freight

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14.3.4 Other information

-

14.4 Sea transport

14.4.1 IMDG class

-

14.4.2 Correct technical name

-

14.4.3 Other information

-

14.5 Air transport

14.5.1 ICAO/IATA class

-

14.5.2 Correct technical name

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14.5.3 Other information

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15. REGULATORY INFORMATION

The product is not classified as dangerous in the EU criteria.

15.1 Information on the warning label

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

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15.1.2 Names of the ingredients given on the warning label

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15.1.3 R phrases

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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.

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16. OTHER INFORMATION

16.1 List of the relevant R phrases

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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 basis of available information on components
Shell Vitrea Oil, dated July 27th, 2003

16.6 Information which has been added, deleted or revised

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