

Date: August 8th, 2008

 Former date: January 23rd, 2008

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 Power Steering Treatment

Code of the preparation

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1.2 Use of the chemical
1.2.1 The intended uses of the chemical

Product for restoration and modification of metal friction surfaces of power steering units.

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

1.2.5 The chemical is used by the general public only

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

Pulttitie 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
68037-01-4/ 101316-72-7/ 72623-87-1	Basic oil - unspecified	50 – 90 %	- DMSO < 3 % (IP346)
****	Polyalphaolephine-based lubrication grease with silica thickener	10 – 50 %	-

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: Not classified as flammable, but will burn.

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 (CO₂), sand or earth for small fires.

5.2 Extinguishing media which must not be used for safety reasons

Water. Use of Halon extinguisher should be avoided for environmental reasons

5.3 Special exposure hazards in a fire

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5.4 Special protective equipment for fire-fighters

Breathing apparatus with pressurised air and full protection clothing.

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 by using sand, earth, or other appropriate barriers and absorption materials and by collecting the product. Inform local authorities of the accident. Stop the leak if possible without risks.

6.3 Methods for cleaning up

Start removing liquid product and contaminated soil immediately. Small quantities can be absorbed in an absorbing material. Dispose waste containing the product as indicated in Clause 13.

6.4 Other instructions

Immediately inform the local authorities of accident.

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

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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.

Storage temperatures: 0 °C (32 °F) minimum.

Storage temperatures: 40 °C (104 °F) maximum.

Do not store consumer packages outdoors.

7.3 Specific use(s)

The mixture is mixed, according to separate instructions, with the lubricant used in the mechanism to be treated and they are thoroughly stirred/shaken.

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 ³ (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. Oil mist: use a respirator fitted with a combined A2/P2 filter (for organic gases and solvent vapours/dust).
8.2.1.2	Hand protection Nitrile rubber or PVC gloves. Replace the gloves often enough.
8.2.1.3	Eye protection Wear safety glasses if splashes are likely to occur. Use full face shield if needed.
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 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) Mostly light grey, brown, reddish oil-like liquid (gel suspension) that may possess other shades of colour, due to the natural mineral, and in which minerals may precipitate on the bottom during storage, and part of the liquid (gel suspension) becomes transparent. The product must be shaken or stirred properly before use after long-time storage until the precipitated particles are homogenously spread in the liquid.
9.2	Important health, safety and environmental information
9.2.1	pH -
9.2.2	Boiling point/boiling range > 300 °C (572 °F)
9.2.3	Flash point > 150 °C (302 °F)
9.2.4	Flammability (solid, gas) -
9.2.5	Explosive properties
9.2.5.1	Lower explosive limit -
9.2.5.2	Upper explosive limit -
9.2.6	Oxidising properties -
9.2.7	Vapour pressure below 0,5 Pa (20 °C (68 °F))

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9.2.8 Relative density
830-950 kg/m³ (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

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
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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 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
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 irritates 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
In practice the toxicity of the product to aquatic organisms is low, LC/EC50 > 100 mg/l (estimation).

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 ad-

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sorb 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 Not readily biodegradable. The product contains components that may persist in the environment.
12.3.2	Chemical degradation -
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 -
14.2	Packing group -
14.3	Land transport
14.3.1	Transport class -
14.3.2	Risk code -
14.3.3	Name according to bill of freight -
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 -
14.5.3	Other information -
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 -
15.1.2	Names of the ingredients given on the warning label -
15.1.3	R phrases -
15.1.4	S phrases S24 Beware of chemical getting onto skin S60 This material and its package have to be handled as hazardous waste

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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

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

16.6 Information which has been added, deleted or revised

Revision August 8th, 2008: erroneous information removed at 14.5.