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Reviewed on:	<b>RADIATOR OIL EMULSIFIER</b>	Version: 1.0

**1. Section 1. Identification of the substance/mixture and of the company/undertaking:**

- 1.1. Product identifier: **RADIATOR OIL EMULSIFIER – 1 35603**
- 1.2. Relevant identified uses of the substance or mixture and uses advised against:  
Automotive cooling systems cleaner
- 1.3. Details of the supplier of the safety data sheet  
Identification of manufacturer/Supplier:  
RETECH, s.r.o.  
Vackova 1541/4  
150 00 Praha-5 Stodůlky  
Telephone/Fax: +420 327 596 128, +420 327 596 428  
Information: [info@retech.cz](mailto:info@retech.cz)
- 1.4. Emergency telephone number:  
RETECH Suchdol 212, Suchdol u Kutné Hory  
Tel.+420 327 596 128 (7.30-16.00 hour)  
Toxicology information number, Na bojišti 1, 128 08 PRAHA 2  
Tel. +420 224 919 293, +420 224 915 402 (24 hours a day)

**2. Section 2. Hazard identification:**

- 2.1. Classification of the substance or mixture:  
Classification according to Regulation (EC) No 1272/2008 [CLP]:  
Flam. Liq. 2 H225 Highly flammable liquid and vapour.  
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.  
Acute Tox. 4 H312 Harmful in contact with skin.  
H332 Harmful if inhaled.  
Eye Irrit. 2 H319 Causes serious eye irritation.
- Classification according to Directive 67/548/EEC or Directive 1999/45/EC:  
F - Highly flammable R11 Highly flammable.  
Xi – Irritant R36 Irritating to eyes.  
Xn - Harmful R20/21 Harmful by inhalation and in contact with skin.  
R65 Harmful: May cause lung damage if swallowed.  
R66 Repeated exposure may cause skin dryness or cracking.

- 2.2. Label elements:  
Labelling according to Regulation (EC) No 1272/2008 [CLP]:  
GHS02 GHS07 GHS08



Signal word: Danger

Hazard statements:

- H225 Highly flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H312 Harmful in contact with skin.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.

Precautionary statement:

- P102 Keep out of reach of children.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P261 Avoid breathing vapours/spray.

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P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P501 Dispose of contents/container in accordance with national regulation.

Supplemental Hazard information:  
EUH066 Repeated exposure may cause skin dryness or cracking.

Contained dangerous substances:  
64742-48-9 Naphtha (petroleum), hydrotreated heavy

Regulation (EC) No 648/2004: Aliphatic hydrocarbons  $\geq 30\%$ , aromatic hydrocarbons 5- $<15\%$ , non-ionic surfactants  $<5\%$

- 2.3. Other hazards:  
Results of PBT and vPvB assessment:  
PBT: Not applicable  
vPvB: Not applicable

**3. Section 3. Composition/information on ingredients:**

- 3.2. Mixtures:  
Description of the mixture: Active substance

Hazardous ingredients:

CAS: 64742-48-9 ES: 265-150-3 Reg. Nr.: 01-2119463258-33-xxxx	Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha (contains less than 0.1 % benzene (ES 200-753-7) R10; Xn R65; R66; R67 Flam. Liq. 3, H226; Asp. Tox. 1, H304; STOT SE 3, H336; EUH066	30-60 %
CAS: 64-17-5 ES: 200-578-6	Ethanol F R11 Flam. Liq. 2, H225	10-30 %
CAS: 67-63-0 ES: 200-661-7	Propan-2-ol F R11; Xi R36; R67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	10-30 %
CAS: 1330-20-7 ES: 215-535-7	Xylene R10; Xn R20/21; Xi R38 Flam. Liq. 3, H226; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Asp. Tox. 1, H304	10-30 %
CAS: 68603-42-9 ES: -	Coconut Diethanolamide Xi R38; R41	1-5 %
CAS: 67-56-1 ES: 200-659-6	Methanol F R11; T R23/24/25-39/23/24/25 Flam. Liq. 2, H225; Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; STOT SE 1, H370	< 1%

For full text of H-statements and R-phrases: see SECTION 16.

Regulation (EC) No 648/2004 on detergents: Aliphatic hydrocarbons  $\geq 30\%$ , aromatic hydrocarbons 5- $<15\%$ , non-ionic surfactants  $<5\%$

**4. Section 4. First aid measures:**

- 4.1. Description of first aid measures:  
After inhalation: Move the exposed person to fresh air. Keep the affected person warm and at rest. Get prompt medical attention. If breathing is irregular or stopped perform

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<p>After skin contact: administer artificial respiration. Immediately wash with water and soap and rinse thoroughly. If symptoms persist, consult a doctor.</p> <p>After eye contact: Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. If symptoms persist, consult a doctor.</p> <p>After swallowing: Do not induce vomiting. Rinse mouth with plenty of water. Call for a doctor immediately.</p> <p>4.2. Most important symptoms and effects, both acute and delayed: No further relevant information available.</p> <p>4.3. Indication of any immediate medical attention and special treatment needed: No further relevant information available.</p>
<p><b>5. Section 5. Fire fighting measures:</b></p> <p>5.1. Extinguishing media: Suitable extinguishing agents: Dry chemicals, sand, dolomite etc., alcohol resistant foam, water spray, fog or mist, Carbon dioxide (CO2). For safety reasons unsuitable extinguishing agents: No further relevant information available.</p> <p>5.2. Special hazards arising from the substance or mixture: Vapours are heavier than air and may spread near ground to sources of ignition.</p> <p>5.3. Advice for firefighters: Wear protective clothing and self-contained breathing apparatus. Move container from fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapours. Keep run-off water out of sewers and water sources.</p>
<p><b>6. Section 6. Accidental release measures:</b></p> <p>6.1. Personal precautions, protective equipment and emergency procedures: Wear protective equipment see Section 8.2. Ensure adequate ventilation. Keep unprotected persons away. Keep away from source of ignition.</p> <p>6.2. Environmental precautions: Do not allow to enter sewage system, surface or ground water. Inform respective authorities in case of seepage into water course or sewage system.</p> <p>6.3. Methods and material for containment and cleaning up: Ensure adequate ventilation. Stop leak if possible without risk. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to Section 13.</p> <p>6.4. Reference to other sections: See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.</p>
<p><b>7. Section 7. Handling and storage:</b></p> <p>7.1. Information for safe handling: Ensure good ventilation/exhaustion at the workplace. Avoid contact with skin and eyes. Avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Risk of vapour concentration on the floor and in low-lying areas. Measures to prevent fire: Keep away from heat, sparks and open flame. Static electricity and formation of sparks must be prevented.</p> <p>Measures to protect the environment: Avoid spilling.</p> <p>7.2. Conditions for safe handling, including any incompatibilities: Technical measures and storage conditions: Flammable/combustible - Keep away from oxidisers, heat and flames. Requirements for storage rooms and vessels: Keep containers tightly closed. Storage Class, Flammable liquid storage. Further information on storage conditions: No further relevant information available.</p> <p>7.3. Specific end use(s): No further relevant information available.</p>




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<b>8.</b>	<b>Section 8. Exposure controls and personal protection:</b>																		
8.1	Control parameters: Components with limit values that require monitoring at the workplace: <table border="1"> <thead> <tr> <th>WEL (UK)</th> <th>Short-term (STEL)</th> <th>Long-term (8h TWA)</th> </tr> </thead> <tbody> <tr> <td>Ethanol</td> <td></td> <td>1920 mg/m<sup>3</sup> 1000 ppm</td> </tr> <tr> <td>Methanol</td> <td>333 mg/m<sup>3</sup>(Sk) 250 ppm(Sk)</td> <td>266 mg/m<sup>3</sup>(Sk) 200 ppm(Sk)</td> </tr> <tr> <td>Propan-2-ol</td> <td>1250 mg/m<sup>3</sup> 500 ppm</td> <td>999 mg/m<sup>3</sup> 400 ppm</td> </tr> <tr> <td>Xylene</td> <td>441 mg/m<sup>3</sup>(Sk) 100 ppm(Sk)</td> <td>220 mg/m<sup>3</sup>(Sk) 50 ppm(Sk)</td> </tr> <tr> <td>Naphtha (petroleum), hydrotreated heavy</td> <td></td> <td>1000 mg/m<sup>3</sup></td> </tr> </tbody> </table> <p>Additional information: The lists that were valid during the compilation were as basis.</p>	WEL (UK)	Short-term (STEL)	Long-term (8h TWA)	Ethanol		1920 mg/m <sup>3</sup> 1000 ppm	Methanol	333 mg/m <sup>3</sup> (Sk) 250 ppm(Sk)	266 mg/m <sup>3</sup> (Sk) 200 ppm(Sk)	Propan-2-ol	1250 mg/m <sup>3</sup> 500 ppm	999 mg/m <sup>3</sup> 400 ppm	Xylene	441 mg/m <sup>3</sup> (Sk) 100 ppm(Sk)	220 mg/m <sup>3</sup> (Sk) 50 ppm(Sk)	Naphtha (petroleum), hydrotreated heavy		1000 mg/m <sup>3</sup>
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Naphtha (petroleum), hydrotreated heavy		1000 mg/m <sup>3</sup>																	
8.2	Exposure controls: Measures to prevent exposure: Provide eyewash station. Personal protection equipment: Breathing equipment: Not required, but ensure adequate ventilation when using the product. Use suitable respiratory protective device in case of insufficient ventilation. In case of brief exposure or low pollution use respiratory filter device (Filter AX). Eye protection: Tightly sealed safety glasses or face shield. Protection of hands: Protective gloves Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. Protection of skin: Protective working clothing.																		
8.3.	General protective and hygienic measures: Wash hands at the end of each work shift and before eating. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes wet or contaminated. When using do not eat, drink or smoke.																		
<b>9.</b>	<b>Section 9. Physical and chemical properties:</b>																		
	Appearance: Form: Liquid Colour: Transparent Odour threshold: Petrol-like Value pH: Not determined Melting point/freezing point: Not determined Initial boiling point/boiling range: Not determined Flash point: <21°C Evaporation rate: Not determined Flammability (solid,gas): Not determined Explosive properties: Not determined Explosive limits: lower (% Vol): Not determined upper (% Vol): Not determined Vapour pressure (at 20°C): Not determined Vapour density (at 20 °C): Not determined Density at 20°C: 0.77-0.79 g/cm <sup>3</sup> Relative density: Not determined Solubility in/miscibility with: - water Insoluble in water. Partition coefficient (n-octanol/water): Not determined Auto-ignition temperature: Not determined Decomposition temperature: Not determined Viscosity: Not determined Oxidising properties: Not determined																		
9.2.	Other information: No further relevant information available.																		

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<b>10. Section 10. Stability and reactivity:</b>	
10.1. Reactivity:	No further relevant information available.
10.2. Chemical stability:	Stable under normal temperature conditions.
10.3. Possibility of hazardous reactions:	No further relevant information available.
10.4. Conditions to avoid:	Avoid heat, flames and other sources of ignition.
10.5. Incompatible materials:	Avoid contact with strong oxidisers.
10.6. Hazardous products of decomposition:	Creation of vapours and gases of carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ) is possible during fire.
<b>11. Section 11. Toxicological information:</b>	
11.1 Information on toxicological effects:	
Acute toxicity:	No further relevant information available.
Irritation: on the skin:	Prolonged or repeated exposure may cause severe irritation. May cause cracking of skin, and eczema.
on the eye:	Irritating to eyes. Irritation, burning, lachrymation, blurred vision after liquid splash.
Corrosivity:	Not corrosive.
Sensitization:	No sensitizing effect known.
Repeated dose toxicity:	No further relevant information available.
Carcinogenicity:	No further relevant information available.
Mutagenicity:	No further relevant information available.
Toxicity for reproduction:	No further relevant information available.
Other information:	Inhalation: High concentrations of vapours may irritate respiratory system. Vapours may cause headache, fatigue, dizziness and nausea, vomiting or intoxication. Harmful by inhalation. Irritating to respiratory system. Ingestion: May cause stomach pain or vomiting. Gastrointestinal symptoms, including upset stomach. Pneumonia may be the result if vomited material containing solvents reaches the lungs. Harmful if swallowed. Harmful in contact with skin.Repeated exposure may cause chronic eye irritation. Irritation of eyes and mucous membranes. Dilated pupils. Rhinitis.
<b>12. Section 12. Ecological information:</b>	
12.1. Toxicity:	No further relevant information available.
12.2. Persistence and degradability:	No further relevant information available.
12.3. Bioaccumulative potential:	No further relevant information available.
12.4. Mobility in soil:	No further relevant information available.
12.5. Results of PBT and vPvB assessment:	
PBT:	Not applicable
vPvB:	Not applicable
12.6. Other adverse effects:	No further relevant information available.
<b>13. Section 13. Disposal considerations:</b>	
13.1 Waste treatment methods:	
Product:	Must not be disposed together with household garbage. Do not allow product to reach sewage system. Dispose in safe manner in accordance with local/national regulation.
Uncleaned packagings:	Disposal must be made according to official regulations.
<b>14. Section 14. Transport information:</b>	
14.1. UN-Number:	
ADR, IMDG, IATA	UN1993
14.2. UN proper shipping name:	
ADR	FLAMMABLE LIQUID, N.O.S. (XYLENE)
IMDG	FLAMMABLE LIQUID, N.O.S. (XYLENE)
IATA	FLAMMABLE LIQUID, N.O.S. (XYLENE)

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14.3.	Transport hazard classes: ADR	
	Class	3 Flammable liquids
	Hazard label	3
	IMDG	
	Class	3
	Hazard label	3
	IATA	
	Class	3
	Hazard label	3
14.4.	Packaging group: ADR/RID/ADN, IMDG, ICAO	II
14.5.	Environmental hazards: Marine pollutant:	No
14.6.	Special precautions for user: Danger Code (Kemler): EMS Number: Emergency Action Code: Hazard No. (ADR):	Not determined F-E, S-E 3YE 33 Highly flammable liquid (flash-point below 23°C)
14.7.	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable.
<b>15.</b>	<b>Section 15. Regulatory information:</b>	
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture:  Used legislation: Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), as amended Directive 67/548/EEC and Directive 1999/45/EC on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances, as amended Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures (CLP), as amended Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, as amended	
15.2.	Chemical safety assessment: A Chemical Safety Assessment has not been carried out.	
<b>16.</b>	<b>Section 16. Other information:</b>	
	These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.	
	<b>Relevant R-phrases and H-statements:</b>	
	R10 Entzündlich.	
	R11 Highly flammable.	
	R20/21 Gesundheitsschädlich beim Einatmen und bei Berührung mit der Haut.	
	R36 Reizt die Augen.	
	R38 Irritating to skin.	
	R39/23/24/25 Giftig: ernste Gefahr irreversiblen Schadens durch Einatmen ,Berührung mit der Haut und durch Verschlucken.	
	R41 Gefahr ernster Augenschäden.	

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R65 Harmful: May cause lung damage if swallowed.  
R66 Wiederholter Kontakt kann zu spröder oder rissiger Haut führen.  
R67 Vapours may cause drowsiness and dizziness.  
H225 Highly flammable liquid and vapour.  
H226 Flammable liquid and vapour.  
H301 Toxic if swallowed.  
H304 May be fatal if swallowed and enters airways.  
H311 Toxic in contact with skin.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H332 Harmful if inhaled.  
H336 May cause drowsiness or dizziness.  
H370 Causes damage to organs.  
EUH066 Repeated exposure may cause skin dryness or cracking.

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)  
WEL: Workplace exposure limits  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
EC50: Effective concentration, 50 percent  
DNEL Derived No-Effect Level  
LOEC Lowest Observed Effect Concentration  
NOEC No Observed Effect Concentration

The product is labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

**\*Compared to the last version the data has been changed.**