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Reviewed on:	<b>SCREEN WASH WINTER</b>	Version: 1.0

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

- 1.1. Product identifier: **SCREEN WASH WINTER - (-80 °C) R 34688/90/95, 1 35012(-80°C); R 34689/92/93/94, 1 35013(-60°C); 1 35010(-40°C)**
- 1.2. Relevant identified uses of the substance or mixture and uses advised against:  
Application of the substance / the mixture: Winter concentrate for any windscreen washer
- 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: +420 327 596 128  
Fax: +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.  
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.

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



Signal word: Danger

Hazard statements:  
H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.

Precautionary statements:  
P102 Keep out of reach of children.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/container in accordance with national regulation.

- 2.3. Other hazards:  
Results of PBT and vPvB assessment:  
PBT: Not applicable  
vPvB: Not applicable  
Larger spills may threaten surface and ground water.

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

3.2. Mixtures:  
Description of the mixture: Mixture of active ingredients

Hazardous ingredients:

CAS: 64-17-5	Ethanol	60/ < 77/ > 90 %
EINECS: 200-578-6	F R11; Xi R36	
Reg.nr.: 01-2119457610-43	Flam. Liq. 2, H225; Eye Irrit. 2, H319	

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

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

- 4.1. Description of first aid measures:
- After inhalation: Move the exposed person to fresh air at once.  
Keep affected person warm and at rest. Prevent hypothermia.
- After skin contact: Immediately remove any clothing soiled by the product.  
Wash with plenty of water and rinse thoroughly.  
After drying treat the skin with regenerating cream.
- After eye contact: Rinse eyes for several minutes under running water, holding the eyelids open.  
Get medical attention if any discomfort continues.
- After swallowing: Rinse mouth with plenty of water and drink large amount of water.  
Get medical attention if any discomfort continues.
- 4.2. Most important symptoms and effects, both acute and delayed:  
Burning eyes, headache, indigestion.
- 4.3. Indication of any immediate medical attention and special treatment needed:  
No further relevant information available.

**5. Section 5. Fire fighting measures:**

- 5.1. Extinguishing media:  
Suitable extinguishing agents: Water haze, fire-extinguishing powder, carbon dioxide (CO<sub>2</sub>), alcohol resistant foam.  
For safety reasons unsuitable extinguishing agents:  
Water with full jet. It may disperse the fire.
- 5.2. Special hazards arising from the substance or mixture:  
Formation of explosive vapour-air mixtures is possible.  
Vapour may travel considerable distance.  
Vapours are heavier than air and will collect in low areas and confined areas.  
In case of fire it may generate hazardous gases such as carbon monoxide and carbon dioxide.  
Aerosol cans may explode in a fire.
- 5.3. Advice for firefighters:  
Wear protective clothing and self-contained breathing apparatus.  
Do not allow the contaminated extinguishing water to reach the sewage system.

**6. Section 6. Accidental release measures:**

- 6.1. Personal precautions, protective equipment and emergency procedures:  
Wear protective equipment see Section 8.2  
Keep unprotected persons away.  
Do not smoke. Keep away from open flames.  
Keep away from source of ignition.
- 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.
- 6.3. Methods and material for containment and cleaning up:  
Large spills collect into a suitable container.  
Absorb the rest of spills with liquid-binding material (vapex, sand, earth, sawdust) and store in a container for disposal as hazardous waste.  
Spillage Flush with water.  
Dispose contaminated material as waste according to Section 13.
- 6.4. Reference to other sections:  
See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**7. Section 7. Handling and storage:**

- 7.1. Precautions for safe handling: Avoid contact with skin and eyes.  
Wear protective equipment see Section 8.  
Use only in well-ventilated areas.
- Measures to prevent fire: Do not smoke. Keep away from open flames.  
Electrical equipment in the warehouse must be explosion-proof.
- 7.2. Conditions for safe storage including any incompatibilities:  
Technical measures and storage conditions:  
Store in a cool location.
- Requirements for storage rooms and vessels:  
Store in well sealed receptacles.  
Keep in a well-ventilated place at the temperatures from 5 to 20 °C.  
The warehouse should be equipped with a first aid kit and with an emergency eyewash.  
Store out of reach of children.
- Further information on storage conditions:  
Protect from heat and direct sunlight.  
Keep container in a well-ventilated place.
- 7.3. Specific end use(s): Non-freezing mixture.

**8. Section 8. Exposure controls/personal protection:**

- 8.1. Control parameters:  
Components with limit values that require monitoring at the workplace:

WEL: EH40/2005

CAS	Substance	Long-term (8-hr TWA ref. period)		Short-term (15 minute ref. period)		Comments
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	

64-17-5	Ethanol	1000	1920			
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DNELs:

64-17-5	Ethanol					
Oral	DNEL Long term	87	mg/kg	(Consumer)		
Dermal	DNEL Long term	343	mg/kg	(Worker)		
Inhalative	DNEL Long term	206	mg/kg	(Consumer)		
		950	mg/m <sup>3</sup>	(Worker)		
		114	mg/m <sup>3</sup>	(Consumer)		

PNECs:

64-17-5	Ethanol				
Freshwater		0.96	mg/l		
Marine water		0.79	mg/l		
Intermittent release		2.75	mg/l		
Industrial water treatment		580	mg/l		
Fresh water sediment		3.6	mg/kg		
Marine water sediment		2.9	mg/kg		
Soil		0.63	mg/kg		
Oral		0.72	mg/kg		

Additional information: The lists that were valid during the compilation were as basis.

- 8.2. Personal protection equipment:

Measures to prevent exposure: Ensure good ventilation/exhaustion at the workplace.

Breathing equipment: Use suitable respiratory protective device in case of insufficient ventilation. In case of brief exposure or low pollution use respiratory filter device (filter AX/P2). In case of intensive or longer exposure use self-contained respiratory protective device.

Eye protection: Safety goggles or safety shield

Protection of hands: Protective gloves  
Solvent resistant gloves

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Protection of skin: Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.  
General protective and hygienic measures: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.  
Protective suit.  
The usual precautionary measures should be adhered to general rules for handling chemicals.  
Do not eat, drink or smoke during the work.  
Wash hands before breaks and at the end of work.

**9. Section 9. Physical and chemical properties:**

9.1. Information on basic physical and chemical properties:

Appearance:  
Form: Fluid  
Colour: Blue, transparent  
Odour: Alcohol-like  
Odour threshold: Not determined  
Value pH at 20 °C: Not determined  
Melting point/freezing point: According to the concentration of ethanol  
Initial boiling point/boiling range: 78-80 °C (ethanol)  
Flash point: 13 °C  
Evaporation rate: Not determined  
Flammability (solid, gas): Not determined  
Explosive properties: The product is not explosive. However, formation of explosive air/steam mixtures is possible.  
Explosive limits:  
- lower: 3.8 Vol % (ethanol)  
- upper: 19 Vol % (ethanol)  
Vapour pressure at 20°C: 57.26 hPa (ethanol)  
Vapour density at 20 °C: Not determined  
Density at 20°C: 0,79 – 0,82 g/cm<sup>3</sup>  
Relative density: Not determined  
Solubility in/miscibility with:  
- water: Infinitely soluble  
Partition coefficient (n-octanol/water): -35 (ethanol)  
Ignition temperature: > 405 °C  
Decomposition temperature: Not determined  
Kinematic viscosity: 1.6 mm<sup>2</sup>/s at 20 °C (1.26 mPas)  
Oxidising properties: No oxidising properties  
9.2. Other information:  
Organic solvents: 60%(-40°C), 70%(-60°C), 85% (-80°C)

**10. Section 10. Stability and reactivity:**

10.1. Reactivity: Reacts with strong oxidizing agents.  
10.2. Chemical stability: No decomposition if used according to specifications.  
10.3. Possibility of hazardous reactions: Reacts vigorously with alkali metals to form hydrogen.  
10.4. Conditions to avoid: Do not expose to high temperatures.  
Avoid heat, flames and other sources of ignition.  
10.5. Incompatible materials: Strong acids and basis, alkali metals, strong oxidising agents.  
10.6. Hazardous decomposition products: When overheated, it may emits health dangerous products.

**11. Section 11. Toxicological information:**

11.1. Information on toxicological effects:  
Acute toxicity:

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LD/LC50 values relevant for classification:

CAS	LD50 Oral, (rat) mg/kg	LD50 Dermal, (rabbit) ml/kg	LC50 Inhalative, (rat) mg/l
64-17-5 Ethanol	> 7692	> 2000	52.9

Irritation: Skin: No irritating effect.  
Eyes: Irritating effect.

Corrosivity: Not corrosive.

Sensitization: Preparation does not contain any sensibilizing substances.

Repeated dose toxicity: No further relevant information available.

Carcinogenicity: Preparation does not contain any carcinogenic substances.

Mutagenicity: Preparation does not contain substances classified as mutagenes.

Toxicity for reproduction: Preparation does not contain substances classified as toxic for reproduction.

Other information: Dangerous for water in large quantities.

**12. Section 12. Ecological information:**

- 12.1. Toxicity:
- Aquatic toxicity:
- |                 |               |                 |  |
|-----------------|---------------|-----------------|--|
| 64-17-5 Ethanol |               |                 |  |
| LC50/96h        | 14.2 mg/l     | (Fish)          |  |
| LC50/48h        | > 100 mg/l    | (Daphnia magna) |  |
| EC50/72h        | 7,65 g/l/10 d | (Algae)         |  |
- 12.2. Persistence and degradability: Easily biodegradable.
- 12.3. Bioaccumulative potential: No further relevant information available.
- 12.4. Mobility in soil: The mixture is infinitely soluble in water.  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- 12.5. Results of PBT and vPvB assessment:
- PBT: Not applicable
- vPvB: Not applicable
- 12.6. Other adverse effects: Dangerous for water in large quantities. The preparation does not show any anomalies in the biological water treatment plants if used in a common manner.

**13. Section 13. Disposal considerations:**



- 13.1. Waste treatment methods:
- Product: European waste catalogue: 16 01 14\*  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
Collect residues of the product devalued by use in marked packs and hand over for liquidation to the person authorized to handle dangerous waste.  
Dispose in safe manner in accordance with local/national regulation.
- Uncleaned packagings: European waste catalogue: 15 01 10\*  
Disposal must be made according to official regulations.
- Cleaned packagings: European waste catalogue: 15 01 02  
The used and fully emptied packing must be disposed at the collection point of waste containers.

**14. Section 14. Transport information:**

- 14.1. UN number:  
ADR, IMDG, IATA UN1170
- 14.2. UN proper shipping name:  
ADR 1170, ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)  
IMDG ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)  
IATA ETHANOL SOLUTION
- 14.3. Transport hazard class(es):  
ADR



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Class	3	Flammable liquids.
Hazard label	3	
IMDG		
Class	3	
Hazard label	3	
ICAO		
Class	3	
Hazard label	3	
14.4. Packing group:		
ADR, IMDG, IATA	II	
14.5. Environmental hazards:		
Marine pollutant:	No	
14.6. Special precautions for user:		Warning: Flammable liquids.
Danger Code (Kemler):	-	
EMS Number:		No further relevant information available.
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:		Not applicable
Transport/ Additional information:		
ADR		
Limited quantities (LQ)	1L	
Transport category	2	
Tunnel restriction code	D/E	
UN "Model Regulation":		UN1170, ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II

**15. Section 15. Regulatory information:**

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.

**16. Section 16. Other information:**

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.)

Relevant R-phrases and H-statements (Section 3):

R11 Highly flammable.  
R36 Irritating to eyes.  
H225 Highly flammable liquid and vapour.  
H319 Causes serious eye irritation.

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

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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)  
OEL Occupational Exposure Limit  
WEL Workplace exposure limits  
BMGV Biological monitoring guidance values  
TWA Time-Weighted Average  
EC50 Effective concentration, 50 percent  
LC50 Lethal concentration, 50 percent  
LD50 Lethal dose, 50 percent  
DNEL Derived No-Effect Level  
PNEC Predicted No-Effect Concentration  
LOEC Lowest Observed Effect Concentration  
NOEC No Observed Effect Concentration  
PBT Persistent Bioaccumulative Toxic  
vPvB Very Persistent, Very Bioaccumulative  
VOC Volatile Organic Compounds  
MAL-Code Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)

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.**