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

- 1.1. Product identifier: **RUBBER PROTECTION - R 50110**
- 1.2. Relevant identified uses of the substance or mixture and uses advised against:
Application of the substance / the mixture: Protection spray - Anticorrosion additive
- 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
- 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. Aerosol 1 H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.
Skin Irrit. 2 H315 Causes skin irritation.
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.
- Classification according to Directive 67/548/EEC or Directive 1999/45/EC:
F+ Extremely flammable R12 Extremely flammable.
Xi Irritant R38 Irritating to skin.
N Dangerous for the environment R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67 Vapours may cause drowsiness and dizziness.

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



Signal word: Danger

Hazard statements:

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H315 Causes skin irritation.
H411 Toxic to aquatic life with long lasting effects.

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.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P251 Do not pierce or burn, even after use.
P211 Do not spray on an open flame or other ignition source.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P501 Dispose of contents/container in accordance with national regulation.

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Contained dangerous substances:
64742-49-0 Naphtha (petroleum), hydrotreated light

2.3. Other hazards:

Results of PBT and vPvB assessment:

PBT: Not applicable

vPvB: Not applicable

Buildup of explosive mixtures possible without sufficient ventilation.

3. Section 3. Composition/information on ingredients:

3.2. Mixtures:

Description of the mixture: Mixture of active agents with propellant

Hazardous ingredients:

CAS: 115-10-6 EINECS: 204-065-8	Dimethyl ether F+ R12 Flam. Gas 1, H220; Press. Gas, H280	25-<50 %
CAS: 64742-49-0 EC nr.: 921-024-6 Reg.nr.: 01-2119475514-35	Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha (containing < 0.1% benzene) F R11; Xi R38; N R51/53; Xn R65; R67 Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	10-<25 %
CAS: 64742-49-0 EC nr.: 927-510-4 Reg.nr.: 01-2119475515-33	Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha (containing < 0.1% benzene) F R11; Xi R38; N R51/53; Xn R65; R67 Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	10-<25 %
CAS: 78-93-3 EINECS: 201-159-0	Butanone F R11; Xi R36; R66; R67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	5-<10 %
CAS: 141-78-6 EINECS: 205-500-4	Ethyl acetate F R11; Xi R36; R66; R67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3 H336	1-<5 %
CAS: 64742-49-0 EC nr.: 920-750-0 Reg.nr.: 01-2119475515-33-0001	Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha (containing < 0.1% benzene) F R11; N R51/53; Xn R65; R66; R67 Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336	1-<5 %
CAS: 110-82-7 EINECS: 203-806-2	Cyclohexane F R11; Xi R38; N R50/53; Xn R65; R67 Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Acute 1, H400, Aquatic Chronic 1, H410; Skin Irrit. 2, H315; STOT SE 3, H336	1-<5 %
CAS: 64742-95-6 EINECS: 265-199-0 Reg.nr.: 01-2119455851-35	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha – unspecified (containing < 0.1% benzene) R 10; Xi R37; N R51/53; Xn R65; R66; R67 Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H335; STOT SE 3, H336	1-<5 %

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: Supply fresh air.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

Get medical attention if any discomfort continues.

After eye contact: Rinse opened eye for several minutes under running water.

Get medical attention if any discomfort continues.

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4.2.	After swallowing:	Call for a doctor immediately.
4.2.	Most important symptoms and effects, both acute and delayed:	No further relevant information available.
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: Carbon dioxide (CO ₂), sand, extinguishing powder. Do not use water. For safety reasons unsuitable extinguishing agents: Water. Water with full jet.
5.2.	Special hazards arising from the substance or mixture:	No further relevant information available.
5.3.	Advice for firefighters:	Wear protective clothing and self-contained breathing apparatus. Cool endangered receptacles with water spray.
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. Ensure adequate ventilation.
6.2.	Environmental precautions:	Do not allow to enter sewage system, surface or ground water. 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:	Ensure adequate ventilation. Do not flush with water or aqueous cleansing agents. Absorb with liquid-binding material. Dispose contaminated material as waste according to Section 13.
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.
7.	Section 7. Handling and storage:	
7.1.	Precautions for safe handling:	Ensure good ventilation/exhaustion at the workplace. Use only in well-ventilated areas. Open and handle receptacle with care.
	Measures to prevent fire:	Do not spray onto a naked flame or any incandescent material. Keep ignition sources away - Do not smoke. Protect against electrostatic charges. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.
7.2.	Conditions for safe storage including any incompatibilities:	
	Technical measures and storage conditions:	Observe official regulations on storing packagings with pressurized containers.
	Requirements for storage rooms and vessels:	Observe official regulations on storing packagings with pressurized containers. Store in a cool location. Store in cool, dry conditions in well sealed receptacles. Keep receptacle tightly sealed.
	Further information on storage conditions:	Protect from heat and direct sunlight.
7.3.	Specific end use(s):	No further relevant information available.
8.	Section 8. Exposure controls/personal protection:	
8.1.	Control parameters:	
	Components with limit values that require monitoring at the workplace:	

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WEL (UK): EH40/2005

CAS	Substance	Long-term (8-hr TWA ref. period)		Short-term (15 minute ref. period)		Comments
		ppm	mg/m ³	ppm	mg/m ³	
115-10-6	Dimethyl ether	400	766	500	958	
78-93-3	Butanone	200	600	300	899	Sk, BMGV
141-78-6	Ethyl acetate	200		400		
110-82-7	Cyclohexane	100	350	300	1050	

OEL (EU): 2000/39/EG, 2006/15/EG, 2009/161/EG

CAS	Name of agent	Eight hours		Short-term		Notation
		mg/m ³	ppm	mg/m ³	ppm	
115-10-6	Dimethylether	1920	1000			
78-93-3	Butanone	600	200	900	300	
110-82-7	Cyclohexane	700	200			

DNELs:

64742-49-0	Naphtha (petroleum), hydrotreated light	(EC number: 921-024-6)			
Oral	DNEL Long term-systemic	699 mg/kg bw/day			(General population)
Dermal	DNEL Long term-systemic	699 mg/kg bw/day			(General population)
	DNEL Long term-systemic	773 mg/kg bw/day			(Worker)
Inhalative	DNEL Long term-systemic	608 mg/m ³			(General population)
	DNEL Long term-systemic	2035 mg/m ³			(Worker)
64742-49-0	Naphtha (petroleum), hydrotreated light	(EC number: 927-510-4)			
Oral	DNEL Long term-systemic	149 mg/kg bw/day			(General population)
Dermal	DNEL Long term-systemic	149 mg/kg bw/day			(General population)
	DNEL Long term-systemic	300 mg/kg bw/day			(Worker)
Inhalative	DNEL Long term-systemic	477 mg/m ³			(General population)
	DNEL Long term-systemic	2085 mg/m ³			(Worker)
64742-49-0	Naphtha (petroleum), hydrotreated light	(EC number: 920-750-0)			
Oral	DNEL Long term-systemic	699 mg/kg bw/day			(General population)
Dermal	DNEL Long term-systemic	699 mg/kg bw/day			(General population)
	DNEL Long term-systemic	773 mg/kg bw/day			(Worker)
Inhalative	DNEL Long term-systemic	608 mg/m ³			(General population)
	DNEL Long term-systemic	2035 mg/m ³			(Worker)
64742-95-6	Solvent naphtha (petroleum), light arom.				
Oral	DNEL Long term-systemic	11 mg/kg bw/day			(General population)
Dermal	DNEL Long term-systemic	11 mg/kg bw/day			(General population)
	DNEL Long term-systemic	25 mg/kg bw/day			(Worker)
Inhalative	DNEL Long term-systemic	150 mg/m ³			(Worker)

Biological limit values:

BMGV (UK): EH40/2005

CAS	Substance	BMGV	Sampling time
78-93-3	Butanone	70 µmol butan-2-one/L in urine	Post shift

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

8.2. Exposure controls:

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

Personal protection equipment:

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: Tightly sealed goggles

Protection of hands: Protective gloves

Material of gloves: Fluorocarbon rubber (Viton), Nitrile rubber

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality.

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As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Recommended thickness of the material: ≥ 0.12 mm
Penetration time of glove material: > 480 min
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 suit.
General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Do not inhale gases/ fumes/ aerosols.
Immediately remove all soiled and contaminated clothing.
Avoid eye and skin contact.

9. Section 9. Physical and chemical properties:

9.1. Information on basic physical and chemical properties:

Appearance:
Form: Aerosol
Colour: Black
Odour: Characteristic
Odour threshold: Not determined
Value pH: Not determined
Melting point/freezing point: Not determined
Initial boiling point/boiling range: -25 °C
Flash point: < -20 °C (DIN 53213)
Evaporation rate: Not applicable
Flammability (solid, gas): Not applicable
Explosive properties: The product is not explosive. However, formation of explosive air/steam mixtures is possible.
Explosive limits:
– lower: 0.6 Vol %
– upper: 18.0 Vol %
Vapour pressure at 20°C: 60 hPa
Vapour density at 20 °C: Not determined
Density at 20°C: 0.812 g/cm³ (DIN 51757)
Relative density: Not determined
Solubility in/miscibility with:
– water: Not miscible or difficult to mix.
Partition coefficient (n-octanol/water):
Ignition temperature: 200 °C
Decomposition temperature: Not determined
Self-igniting: The product is not selfigniting.
Viscosity: Not determined
Oxidising properties: Not determined

9.2. Other information:
VOC: 615.8 g/l
Solids content: 23.7 % (DIN 53216)
Organic solvents: 75.8 %

10. Section 10. Stability and reactivity:

10.1. Reactivity: No further relevant information available.
10.2. Chemical stability: No decomposition if used according to specifications.
10.3. Possibility of hazardous reactions: No dangerous reactions known.
10.4. Conditions to avoid: No further relevant information available.
10.5. Incompatible materials: No further relevant information available.

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10.6. Hazardous decomposition products:
Carbon monoxide (CO)

11. Section 11. Toxicological information:

11.1. Information on toxicological effects:
Acute toxicity:

LD/LC50 values relevant for classification:

CAS		LD50 Oral, rat mg/kg	LD50 Dermal, rabbit mg/kg	LC50 Inhalative, rat mg/l
115-10-6	Dimethyl ether			164 (/4h)
64742-49-0	Naphtha (petroleum), hydrotreated light (EC number: 921-024-6)	> 5800	> 2920	> 25.2 (/4h)
64742-49-0	Naphtha (petroleum), hydrotreated light (EC number: 927-510-4)	> 5800	> 2920	> 23.3 (/4h)
78-93-3	Methyl ethyl ketone	3300	5000	
141-78-6	Ethyl acetate	(4935; rabbit)		1600 (/4h)
64742-49-0	Naphtha (petroleum), hydrotreated light (EC number: 920-750-0)	> 5000	> 2800	> 23.3 (/4h)
110-82-7	Cyclohexane	12705		(89600, rabbit)
64742-95-6	Solvent naphtha (petroleum), light arom.		> 2000	

Irritation: Skin: Irritant to skin and mucous membranes.
Eyes: No irritating effect.

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: No further relevant information available.

12. Section 12. Ecological information:

12.1. Toxicity:

Aquatic toxicity:

64742-49-0	Naphtha (petroleum), hydrotreated light (EC number: 921-024-6)		
EC50/48h	10 mg/l	(PHAEOPHYTA)	
EL50/48h	3 mg/l	(DAPHNIA MAGNA)	
EL50/72h	30-100 mg/l	(SELENASTRUM CAPRICORNUTUM)	
LL50/96h	11.4 mg/l	(SALMO GAIRDNERI / ONCORHYNCHUS MYKISS)	
64742-49-0	Naphtha (petroleum), hydrotreated light (EC number: 927-510-4)		
EL50/48h	3 mg/l	(DAPHNIA MAGNA)	
EL50/72h	10-30 mg/l	(SELENASTRUM CAPRICORNUTUM)	
LL50/96h	> 13.4 mg/l	(SALMO GAIRDNERI / ONCORHYNCHUS MYKISS)	
64742-49-0	Naphtha (petroleum), hydrotreated light (EC number: 920-750-0)		
EL50/48h	3 mg/l	(DAPHNIA MAGNA)	
EL50/72h	10-30 mg/l	(SELENASTRUM CAPRICORNUTUM)	
LL50/96h	> 13.4 mg/l	(SALMO GAIRDNERI / ONCORHYNCHUS MYKISS)	

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.

Ecotoxic effects: Remark: Toxic for fish.

Additional ecological information:

General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water.
Do not allow to enter water courses, ground water or drains in undiluted and/or large quantities.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms

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12.5.	Results of PBT and vPvB assessment:		
	PBT:	Not applicable	
	vPvB:	Not applicable	
12.6.	Other adverse effects:	No further relevant information available.	
13.	Section 13. Disposal considerations:		
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.	
14.	Section 14. Transport information:		
14.1.	UN number:		
	ADR, IMDG, IATA	UN1950	
14.2.	UN proper shipping name:		
	ADR	1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS	
	IMDG	AEROSOLS, (Naphtha (petroleum), hydrotreated light, HEPTANES), MARINE POLLUTANT	
	IATA	AEROSOLS, FLAMMABLE	
14.3.	Transport hazard class(es):		
	ADR		
	Class	2	5F
	Hazard label	2.1	
	IMDG		
	Class	2.1	
	Hazard label	2.1	
	IATA		
	Class	2.1	
	Hazard label	2.1	
14.4.	Packing group:		
	ADR, IMDG, IATA	Void	
14.5.	Environmental hazards:		
	Marine pollutant:	Yes	
	Special marking (ADR):	Symbol (fish and tree)	
	Special precautions for user:	Warning: Gases	
	Danger Code (Kemler):	-	
	EMS Number:	F-D, S-U	
14.7.	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:		
		Not applicable	
	Transport/ Additional information:		
	Transport classification ADR/IMDG is based on packaging > 30 ltr (IMDG) < 450 ltr (ADR).		
	For other packaging units different classification can apply.		
	See ADR 2.2.3.1.3/ 2.2.3.1.4 und IMDG 2.3.2.3 / 2.3.2.5		
	ADR		
	Limited quantities (LQ)	1L	
	Transport category	2	
	Tunnel restriction code	D	
	UN "Model Regulation":	UN1950, AEROSOLS, ENVIRONMENTALLY HAZARDOUS, 2.1	

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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

National regulations: Danish MAL Code

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):

R10 Flammable.

R11 Highly flammable.

R12 Extremely flammable.

R36 Irritating to eyes.

R37 Irritating to respiratory system.

R38 Irritating to skin.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 Harmful: May cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

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)

OEL Occupational Exposure Limit

WEL Workplace exposure limits

BMGV Biological monitoring guidance values

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STEL Short-term exposure limit
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 Arbejdshygienisk 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.**