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Reviewed on:	CLEAN	Version: 1.0

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

- 1.1. Product identifier:
Trade name: **CLEAN**
Product code: **1 02.0021/22/23/25 - 5/10/30/200 liter (canister/barrel)**
- 1.2. Relevant identified uses of the substance or mixture and uses advised against:
Uses of the mixture: Degreaser.
For professional and industrial use only.
Uses advised against: Not known.
- 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 number/Fax: +420 327 596 128, +420 327 596 428
E-mail: info@retech.cz
- 1.4. Emergency telephone number: RETECH, Suchdol 212, 285 02 Suchdol u Kutné Hory, Czech Republic
Telephone number: +420 327 596 128 (7.30-16.00 hour)
Toxikologické informační středisko (Toxicology information centre),
Na bojišti 1, 128 08 PRAHA 2, Czech Republic
Telephone number: +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.
Skin Irrit. 2 H315 Causes skin irritation.
STOT SE 3 H336 May cause drowsiness or dizziness.
Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.
Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

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



Signal Word: Danger

Hazard Statements:

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H304 May be fatal if swallowed and enters airways.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P243 Take precautionary measures against static discharge.
P260 Do not breathe mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

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P312 Call a POISON CENTER/doctor if you feel unwell.
P331 Do NOT induce vomiting.
P391 Collect spillage.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with national regulation.

Supplemental Hazard information (EU):
EUH208 Contains d-limonene. May produce an allergic reaction.

Contained dangerous substances:
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics;
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane;
67-63-0 Propan-2-ol

Regulation (EC) No 648/2004:
Aliphatic hydrocarbons ≥ 30 %; Parfum (limonene) < 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: Mixture of active ingredients

Hazardous ingredients:

EC nr.: 927-510-4 Reg.nr.: 01-2119475515-33	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	25 - 50 %
EC nr.: 921-024-6 Reg.nr.: 01-2119475514-35	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	25 - 50 %
CAS: 67-63-0 EINECS: 200-661-7 Reg.nr: 01-2119457558-25	Propan-2-ol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	1 – 2.5 %
CAS: 5989-27-5 EINECS: 227-813-5	(R)-p-mentha-1,8-diene; d-limonene Flam. Liq. 3, H226; Skin. Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	0.1 - 1 %

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

Regulation (EC) No 648/2004:
Aliphatic hydrocarbons ≥ 30 %; Parfum (limonene) < 5%

4. Section 4. First aid measures:

4.1. Description of first aid measures:

General notes: When in doubt or if symptoms are observed, get medical advice.
After inhalation: Move affected person to fresh air and keep warm and at rest.
Get medical attention if any discomfort continues.
After skin contact: Wash immediately with plenty of water and soap and rinse thoroughly.
Take off immediately all contaminated clothing.
After eye contact: Rinse opened eye for several minutes under running water.
Remove contact lenses, if present and easy to do. Continue rinsing.
Get medical attention if any discomfort continues.
After swallowing: Do not induce vomiting.

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4.2.	Most important symptoms and effects, both acute and delayed:	Immediately call a doctor. Headaches. Unconsciousness. Risk of pulmonary edema. Risk of pneumonia.
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), extinguishing powder, foam.
	Unsuitable extinguishing agents:	Water with full jet.
5.2.	Special hazards arising from the substance or mixture:	Formation of explosive gas-air mixtures is possible. Formation of toxic gases and vapours is possible during heating or in case of fire. Carbon monoxide, carbon dioxide.
5.3.	Advice for firefighters:	Wear protective clothing and self-contained breathing apparatus. Use water spray to keep fire exposed containers cool. Dispose of contaminated extinguishing water and remains after the fire in accordance with the official regulations.
6. Section 6. Accidental release measures:		
6.1.	Personal precautions, protective equipment and emergency procedures:	Wear protective equipment, see Section 8. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources.
6.2.	Environmental precautions:	Do not allow to enter sewage system, surface or ground water. Inform respective authorities in case product reaches water course or sewage system.
6.3.	Methods and material for containment and cleaning up:	Ensure adequate ventilation. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). 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:	
	Protective measures:	Wear protective equipment, see Section 8. Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols. Avoid contact with skin and eyes.
	Measures to prevent fire:	Keep ignition sources away - Do not smoke. Protect against electrostatic charges.
7.2.	Conditions for safe storage, including any incompatibilities:	
	Requirements for storage rooms and vessels:	Store in a cool place.
	Technical measures and storage conditions:	No special measures are necessary.
	Further information on storage conditions:	Protect from heat and direct sunlight.
7.3.	Specific end use(s):	No further relevant information available.

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8. Section 8. Exposure controls/personal protection:

8.1. Control parameters:

Components with limit values that require monitoring at the workplace:

WEL (United Kingdom): 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	
67-63-0	Propan-2-ol	400	999	500	1250	-

DNEL

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Inhalation	Chronic effects systemic	2085	mg/m ³	Workers
	Chronic effects systemic	447	mg/m ³	Consumers
Dermal	Chronic effects systemic	300	mg/kg Body weight/day	Workers
	Chronic effects systemic	149	mg/kg Body weight/day	Consumers
Oral	Chronic effects systemic	149	mg/kg Body weight/day	Consumers

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

Inhalation	Chronic effects systemic	2035	mg/m ³	Workers
	Chronic effects systemic	608	mg/m ³	Consumers
Dermal	Chronic effects systemic	773	mg/kg Body weight/day	Workers
	Chronic effects systemic	699	mg/kg Body weight/day	Consumers
Oral	Chronic effects systemic	699	mg/kg Body weight/day	Consumers

67-63-0 Propan-2-ol

Inhalation	Chronic effects systemic	500	mg/m ³	Workers
	Chronic effects systemic	89	mg/m ³	Consumers
Dermal	Chronic effects systemic	888	mg/kg Body weight/day	Workers
	Chronic effects systemic	319	mg/kg Body weight/day	Consumers
Oral	Chronic effects systemic	26	mg/kg Body weight/day	Consumers

PNEC

67-63-0 Propan-2-ol

Freshwater	140.9	mg/l
Marine water	140.9	mg/l
Intermittent releases	140.9	mg/l
Sewage treatment plant	2251	mg/l
Sediment (freshwater)	552	mg/kg
Sediment (marine water)	552	mg/kg
Soil	28	mg/kg

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

8.2. Exposure controls:

Technical measures to prevent exposure:

Ensure good ventilation/exhaustion at the workplace.

General protective measures:

Store away from foodstuffs, beverages and feed.

Take off immediately all contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid breathing gas/vapours/spray.

Avoid skin and eye contact.

Personal protection equipment:

Respiratory protection:

Respiratory protection usually not required with adequate ventilation.

In case of brief exposure or low pollution use respiratory filter device.

Filter, type AX.

In case of intensive or longer exposure use self-contained respiratory protective device.

Eye protection:

Tightly sealed goggles.

Hand protection:

Protective gloves

The glove material must be impermeable and resistant against the product/substance/preparation.

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Recommended material of gloves: nitrile rubber
 Recommended thickness of the material: ≥ 0.7 mm
 Penetration time of glove material: ≥ 240 min
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Skin protection: Protective clothing.

9. Section 9. Physical and chemical properties:

9.1. Information on basic physical and chemical properties:

Form: Fluid
 Colour: Colourless
 Odour: Orange
 Odour threshold: Not determined
 Value pH at 20 °C: Not determined
 Melting point/freezing point: Not determined
 Initial boiling point/boiling range: 80 – 100 °C
 Flash point: < 0 °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: Not determined
 – upper: Not determined

Vapour pressure at 20°C: Not determined
 Vapour density at 20 °C: Not determined
 Density at 20°C: 0.710 g/cm³
 Relative density: Not determined
 Solubility in/miscibility: 0.01 g/l
 Partition coefficient (n-octanol/water): Not determined
 Ignition temperature: > 200 °C
 Decomposition temperature: Not determined
 Self-ignition temperature: Not determined
 Viscosity: Not determined
 Oxidising properties: Not determined

9.2. Other information:

Organic solvent: 99.9 %
 VOC: 709.9 g/l

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.
 10.6. Hazardous decomposition products: Aldehydes, carbon monoxide, carbon dioxide.

11. Section 11. Toxicological information:

11.1. Information on toxicological effects:

Acute toxicity: Based on available data, the classification criteria are not met.
 Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Oral	LD50	Rat	> 5840 mg/kg
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Dermal	LD50	Rabbit	> 2920 mg/kg
Inhalative	LC50/4h	Rat	> 23.3 mg/l

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

Oral	LD50	Rat	> 5840 mg/kg
Dermal	LD50	Rabbit	> 2920 mg/kg
Inhalative	LC50/4h	Rat	< 25.2 mg/l

67-63-0 Propan-2-ol

Oral	LD50	Rat	5045 mg/kg
Dermal	LD50	Rabbit	12800 mg/kg
Inhalative	LC50/4h	Rat	30 mg/l

5989-27-5 (R)-p-metha-1,8-diene; d-limonene

Oral	LD50	Rat	4400 mg/kg
Dermal	LD50	Rabbit	> 5000 mg/kg

Skin corrosion/irritation:	Causes skin irritation.
Serious eye damage/irritation:	Based on available data, the classification criteria are not met.
Respiratory or skin sensitization:	Based on available data, the classification criteria are not met.
Germ cell mutagenicity:	Based on available data, the classification criteria are not met.
Carcinogenicity:	Based on available data, the classification criteria are not met.
Reproductive toxicity:	Based on available data, the classification criteria are not met.
STOT-single exposure:	May cause drowsiness or dizziness.
STOT-repeated exposure:	Based on available data, the classification criteria are not met.
Aspiration hazard:	May be fatal if swallowed and enters airways.
Other information:	No further relevant information available.

12. Section 12. Ecological information:

12.1. Toxicity:

Aquatic toxicity: No further relevant information available.

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Invertebrates:	EC50/48h	Daphnia magna	3 mg/l
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Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

Invertebrates:	EC50/48h	Daphnia magna	3 mg/l
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5989-27-5 (R)-p-metha-1,8-diene; d-limonene

Invertebrates:	EC50/48h	Daphnia magna	0.67 mg/l
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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.

General notes: Water danger class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow to enter water courses, ground water or drains.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic to aquatic organisms.

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 disposal: Do not dispose of with municipal waste.
Do not pour into drains.
Recommended disposal: burning.
European Waste Catalogue: 07 01 04* other organic solvents, washing liquids and mother liquors

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Packagings disposal: (*hazardous waste)
Disposal must be made according to official regulations.
European Waste Catalogue: 15 01 10* packaging containing residues of or contaminated by hazardous substances
(*hazardous waste)

Other disposal recommendations:
Disposal must be made according to official regulations.
The final decisions on the appropriate waste management method, in line with regional, national and European legislation, and possible adaptation to local conditions, remains the responsibility of the waste treatment operator.

14. Section 14. Transport information:

- 14.1. UN number:
ADR, IMDG, IATA UN 3295
- 14.2. UN proper shipping name:
ADR UN 3295 HYDROCARBONS, LIQUID, N.O.S., ENVIRONMENTALLY HAZARDOUS, Special provisions 640D
IMDG HYDROCARBONS, LIQUID, N.O.S. (Naphtha (petroleum), hydrotreated light), MARINE POLLUTANT
IATA HYDROCARBONS, LIQUID, N.O.S.
- 14.3. Transport hazard class(es):
ADR
- | | | |
|--------------|---|---|
| |  |  |
| Class | 3 Flammable liquids | |
| Hazard label | 3 | |
| IMDG |  |  |
| Class | 3 Flammable liquids | |
| Hazard label | 3 | |
| IATA |  | |
| Class | 3 Flammable liquids | |
| Hazard label | 3 | |
- 14.4. Packing group:
ADR, IMDG, IATA II
- 14.5. Environmental hazards:
The product contains environmentally hazardous substances:
(R)-p-metha-1,8-diene; Naphtha (petroleum), hydrotreated light
- Marine pollutant:
Yes
Symbol (fish and tree)
- Special marking (ADR):
Symbol (fish and tree)
- 14.6. Special precautions for user: Warning: flammable liquids
Danger Code (Kemler): 33
EMS Number: F-E, S-D
- 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code:
Not applicable
- ADR
Limited quantities (LQ) 1L
Excepted quantities (EQ) Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml
- Transport category: 2
Tunnel restriction code: D/E
IMDG
Limited quantities (LQ) 1L

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Exempted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation":	UN 3295 HYDROCARBONS, LIQUID, N.O.S., ENVIRONMENTALLY HAZARDOUS, Special provisions 640D, 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, as amended (REACH)

Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, as amended (CLP)

Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, as amended
Commission Decision 2000/532/EC establishing a list of wastes, as amended

Council Directive 89/686/EEC on the approximation of the laws of the Member States relating to personal protective equipment, as amended

Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended

Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

Commission Directive 2006/15/EC establishing a second list of indicative occupational exposure limit values

Commission Directive 2009/161/EU establishing a third list of indicative occupational exposure limit values

Directive 2004/42/CE of the European Parliament and of the Council on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC, as amended

15.2. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. Section 16. Other information:

Relevant H-statements (Section 3):

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye 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)

CAS: Chemical Abstracts Service (division of the American Chemical Society)

EC: Effect Concentration

DNEL: Derived No-Effect Level

EC-Nr.: EINECS and ELINCS Number

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

IATA: International Air Transport Association

IMDG: International Maritime Code for Dangerous Goods

N.O.S.: Not Otherwise Specified entry

LC50: Median concentration lethal to 50 % of a test population

LD50: Median dose lethal to 50 % of a test population

PBT: Persistent, Bioaccumulative, Toxic

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PNEC: Predicted No-Effect Concentration
Reg.nr.: Registration number
VOC: Volatile Organic Compounds
vPvB: Very Persistent, Very Bioaccumulative
WEL: Workplace exposure limits
Aquatic Acute 1: Hazardous to the aquatic environment, category 1
Aquatic Chronic 1: Hazardous to the aquatic environment, category 1
Aquatic Chronic 2: Hazardous to the aquatic environment, category 2
Asp. Tox. 1: Aspiration hazard, category 1
Eye Irrit. 2: Serious eye irritation, category 2
Flam. Liq. 2: Flammable liquid, category 2
Flam. Liq. 3: Flammable liquid, category 3
Skin Irrit. 2: Skin irritation, category 2
Skin. Sens. 1: Skin sensitization, category 1
STOT SE 3: Specific target organ toxicity — single exposure, category 3

The information contained herein is based on our best knowledge and the present legislation. Further, the Safety Data Sheet has been elaborated on the basis of the original Safety Data Sheet provided by the manufacturer. 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.

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