

Safety data sheet
complying with Regulation 1907/2006/EC (REACH Regulation),
EU 2015/830 and Regulation No 1272/2008/EC (CLP)

Printing date 24.05.2018

Version number 1

Revision: 24.05.2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name:** VR 24**CAS Number:**

64-17-5

EC number:

200-578-6

Index number:

603-002-00-5

1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

Application of the substance / the mixture:

Thinner, Diluent

Cleaning thinner

1.3 Details of the supplier of the safety data sheet**Manufacturer/Supplier:**

PENETRON HELLAS S.A.

50, THRAKOMAKEDONON AV., 136 79 ACHARNES, GREECE

TEL.: +30 210 2448250 - FAX: + 30 210 2476803

Email: info@penetron.gr Site: www.penetron.gr

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Tel: +30 210 2448250 Fax: +30 210 2476803

Email: s.damilos@penetron.gr Site: www.penetron.gr

1.4 Emergency telephone number:

European Emergency Tel.: 112

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification according to Regulation EC No 1272/2008 CLP:**

GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

2.2 Label elements**Labelling according to Regulation EC No 1272/2008 CLP:**

The substance is classified and labelled according to the CLP regulation.

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Hazard pictograms:

GHS02

Signal word: Danger**Hazard statements:**

H225 Highly flammable liquid and vapour.

Precautionary statements

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
- 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 [or shower].
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.1 Chemical characterisation: Substances****CAS No. Description**

64-17-5 ethanol

Identification number(s)**EC number:** 200-578-6**Index number:** 603-002-00-5**Ingredients according Regulation (EU) 830/2015:**

| | | |
|----------------------------|--|------------|
| CAS: 67-64-1 | acetone | ≥0.1-≤2.5% |
| EINECS: 200-662-2 | Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336 | |
| Index number: 606-001-00-8 | | |

SECTION 4: First aid measures**4.1 Description of first aid measures****General information:**

Immediately remove any clothing soiled by the product.

Take affected persons out into the fresh air.

After inhalation:

If breathing is difficult, remove to fresh air. Restore breathing. Keep warm and quiet. Notify physician.

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

Get medical attention if symptoms occur.

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After skin contact:

Immediately rinse with water for at least 15 minutes.

Remove contaminated clothing.

In case of skin irritation, consult a physician.

After eye contact:

Remove contact lenses and continue rinsing for several minutes

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Avoid strong water jet-risk of cornea damage, consult a doctor.

After swallowing:

Drink plenty of water and provide fresh air. Call for a doctor immediately.

Seek immediate medical advice.

Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Headache

Nausea

Dizziness

Gastric or intestinal disorders

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing agents:** CO₂, powder or water spray. Fight larger fires with water spray.**For safety reasons unsuitable extinguishing agents:** Jet of water**5.2 Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

Carbon monoxide (CO)

5.3 Advice for firefighters**Protective equipment:**

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Wear self-contained breathing apparatus for confined spaces and where there is exposure to vapors.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources.

Ensure adequate ventilation.

6.1.1 For non-emergency personnel

Avoid contact with dripping or leaking material

Keep unnecessary people away.

6.1.2 For emergency responders

First-aid responders must wear protective clothing, gloves, goggles and respiratory device.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.**6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust, silica gel).

Dispose contaminated material as waste according to item 13.

Send for recovery or disposal in suitable receptacles.

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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.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Open and handle receptacle with care.

Do not breathe vapor or mist.

Do not eat, drink or smoke during the usage of the product.

Handle with care. Avoid jolting, friction and impact.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Do not spray onto a naked flame or any incandescent material.

Flammable gas-air mixtures may form in empty receptacles.

Keep it in a dry, cool, well ventilated, fixed in advance place, away from sources of heat, flames, ignition and direct sunlight.

7.2 Conditions for safe storage, including any incompatibilities**Storage:** Store in cool, dry conditions in well sealed receptacles.**Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Keep container tightly closed when not in use

Store away from sources of ignition

Provide ventilation for receptacles.

Information about storage in one common storage facility: Keep away from food, beverages & animal feed.**Further information about storage conditions:** Protect from heat and direct sunlight.**7.3 Specific end use(s)** No further relevant information available.**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****CAS: 64-17-5 ethanol**WEL (Great Britain) Long-term value: 1920 mg/m³, 1000 ppm**CAS: 67-64-1 acetone**WEL (Great Britain) Short-term value: 3620 mg/m³, 1500 ppmLong-term value: 1210 mg/m³, 500 ppm

IOELV (EU)

Long-term value: 1210 mg/m³, 500 ppm**DNELs**

Ethanol cas number: 64-17-5

Workers long-term exposure systemic effects via inhalation route: 950 mg/m³Workers acute/short term exposure local effects: 1900 mg/m³

Workers systemic effects long-term exposure via dermal route: 343 mg/kg bw/day

General Population systemic effects long-term exposure via inhalation route : 114 mg/m³General Population local effects acute/short term exposure via inhalation route : 950 mg/m³

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General Population systemic effects long term exposure via dermal route : 206 mg/kg bw/day

General Population systemic effects long term exposure via oral route : 87 mg/kg bw/day

Acetone cas number: 67-64-1

DNEL Long-term, workers, dermal: 186 mg/kg bw/d.

DNEL Short-term, workers, inhalative: 2420 mg/m³DNEL Long-term, workers, inhalative: 1210 mg/m³

DNEL Long-term, consumers, oral: 62 mg/kg bw/d.

DNEL Long-term, consumers, dermal: 62 mg/kg bw/d.

DNEL Long-term, consumers, inhalative: 200 mg/m³**PNECs**

Ethanol cas number: 64-17-5

Freshwater : 0.96 mg/l

Marine water : 0.79 mg/l

Intermittent releases : 2.75 mg/l

STP : 580 mg/l

Sediment (freshwater) : 3.6 mg/kg sediment dw

Sediment (marine water) : 2.9

Soil : 0.63 mg/kg soil dw

Acetone cas number: 67-64-1

PNEC water (freshwater): 10.6 mg/L.

PNEC water (marine water): 1.06 mg/L.

PNEC water (intermittent release): 21 mg/L.

PNEC sediment (freshwater): 30.4 mg/kg dwt.

PNEC sediment (marine water): 3.04 mg/kg dwt.

PNEC soil: 33.3 mg/kg dwt.

PNEC sewage treatment plant: 100 mg/L.

DNEL Workers Long term exposure local effects

Ethanol (CAS 64-17-5)

Inhalation: 1900 mg/m³**DNEL Workers Long term exposure systemic effects**

Ethanol (CAS 64-17-5)

Inhalation: 950 mg/m³

Skin Contact: 343 mg/kg bw/day

DNEL consumers Acute/short term exposure Local effects

Ethanol (CAS 64-17-5)

Inhalation : 950 mg/m³**DNEL Consumers Long-term exposure systemic effects**

Ethanol (CAS 64-17-5)

Inhalation: 114 mg/m³

Skin Contact: 206 mg/kg bw/day

8.2 Exposure controls**8.2.1. Appropriate engineering controls**

Take appropriate protective measures with regard to the handling of chemicals and mixtures.

Personal protective equipment**General protective and hygienic measures:**

Take off contaminated clothing and wash before reuse.

Do not eat, drink or smoke while using the product.

Wash hands before breaks and at the end of work.

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Do not breathe vapours or mists.
 Avoid contact with the eyes and skin.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Protection of hands:**Material of gloves**

Butyl rubber, BR - 0,7 mm

Nitrile rubber, NBR- 0,4 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

Eye protection:

Tightly sealed goggles

Body protection:

Protective work clothing

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****General Information****Appearance:**

| | |
|-------------------------|----------------|
| Form: | Liquid |
| Colour: | Colourless |
| Odour: | alcohol |
| Odour threshold: | Not determined |

pH value: Not determined

Melting point/freezing point: -114.5 °C

Initial boiling point and boiling range: 78 °C

Flash point: 13 °C

Flammability (solid, gas): Not applicable

Auto-ignition temperature: 425 °C

Decomposition temperature: Not determined

Auto-ignition temperature: Product is not selfigniting.

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| | |
|---|---|
| Explosive properties: | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| Explosion limits: | |
| Lower: | 3.5 Vol % |
| Upper: | 15 Vol % |
| Vapour pressure at 20 °C: | 59 hPa |
| Density at 20 °C: | 0.79 g/cm ³ |
| Relative density | Not determined |
| Vapour density | Not determined |
| Evaporation rate | Not determined |
| Solubility in / Miscibility with water at 20 °C: | |
| | 1 g/l |
| | Fully miscible |
| Partition coefficient: n-octanol/water: | Not determined |
| Viscosity: | |
| Dynamic at 20 °C: | 1.2 mPas |
| Kinematic: | Not determined |
| Solvent content: | |
| Organic solvents: | 100 % |
| 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity**10.1 Reactivity** Stable under normal conditions**10.2 Chemical stability** Material is stable under normal conditions.**Thermal decomposition / conditions to be avoided**

To avoid thermal decomposition do not overheat.

Stable at environment temperature.

10.3 Possibility of hazardous reactions Product vapors may form explosive mixture with air.**10.4 Conditions to avoid** No further relevant information available.**10.5 Incompatible materials** Oxidising agents**10.6 Hazardous decomposition products** No dangerous decomposition products known.**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity** Based on available data, the classification criteria are not met.**LD/LC50 values relevant for classification:****CAS: 64-17-5 ethanol**

| | | |
|------------|-------------------|-------------------|
| Oral | LD50 | 7,060 mg/kg (rat) |
| Inhalative | LC50/4 h (vapour) | 20,000 mg/l (rat) |

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CAS: 67-64-1 acetone

| | | |
|--------|------|-----------------------|
| Oral | LD50 | 5,800 mg/kg (rat) |
| Dermal | LD50 | 20,000 mg/kg (rabbit) |

Skin corrosion/irritation Based on available data, the classification criteria are not met.**Serious eye damage/irritation** Based on available data, the classification criteria are not met.**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.**Repeated dose toxicity** Based on the data, the classification criteria are not fulfilled.**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)****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** Based on available data, the classification criteria are not met.**STOT-repeated exposure** Based on available data, the classification criteria are not met.**Aspiration hazard** Based on available data, the classification criteria are not met.**SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:**

Ethanol, cas: 64-17-5

Fish toxicity LC50:> 10000 mg / l

Daphnia toxicity, CEE0:> 7800 mg / l

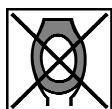
Bacterial toxicity (Ps putida) CEE0:> 6500 mg / l

Algal toxicity (SC. Quadricauda), CEE0:> 5000 mg / l

Algal toxicity (M. Acruginosa), CEE0:> 1450 mg / l

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.**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation**

Dispose according to National Regulations.



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.

Waste disposal key: 07 01 04 * - other organic solvents, washing liquids and mother liquids.**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.

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Recommended cleansing agents: Water, if necessary together with cleansing agents.**SECTION 14: Transport information****14.1 UN-Number****ADR, IMDG, IATA**

UN1993

14.2 UN proper shipping name**ADR**

1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL))

IMDG

FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL))

IATA

FLAMMABLE LIQUID, N.O.S. (ETHANOL)

14.3 Transport hazard class(es)**ADR, IMDG, IATA****Class**

3 Flammable liquids.

Label

3

14.4 Packing group**ADR, IMDG, IATA**

III

14.5 Environmental hazards:

Not applicable.

14.6 Special precautions for user

Warning: Flammable liquids.

Danger code (Kemler):

33

EMS Number:F-E,S-E**Stowage Category**

E

14.7 Transport in bulk according to Annex II of**Marpol and the IBC Code**

Not applicable.

Transport/Additional information:**ADR****Limited quantities (LQ)**

5L

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

Transport category

3

Tunnel restriction code

D/E

IMDG**Limited quantities (LQ)**

5L

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

UN "Model Regulation":

UN 1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL)), 3, III

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SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

REACH Regulation 1907/2006/EC

Regulation (EU) 2015/830

CLP Regulation 1272/2008/EC

Directive 98/24/EC on the protection of health and safety of workers from the risks related to chemicals agents at work.

Council Directive 94/33/EC on the protection of young people at work, as amended.

Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding, as amended

Directive 2012/18/EU**Named dangerous substances - ANNEX I**

Substance is not listed.

None of the ingredients is listed.

Seveso category P5c FLAMMABLE LIQUIDS**Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t**Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 40**National regulations:****Other regulations, limitations and prohibitive regulations****Substances of very high concern (SVHC) according to REACH, Article 57**

The substance is not SVHC.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Training hints

Suitable training on safety in handling, storing and converting the product should be given to the employees based on all the existing information.

Department issuing SDS:

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 REACH & Chemical Services Department
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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)

IMDG: International Maritime Code for Dangerous Goods

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IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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