

## Safety Data Sheet

According to (CE) No 1907/2006, amended by Regulation (EU) 2020/878

Version number: 108 Revision date: 15/05/2024

Trade name: RV-0 Vulcanizing Cement, RV-1 Vulcanizing Cement, RV-2 Vulcanizing Cement

### 1 Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Trade name: RV-0 Vulcanizing Cement, RV-1 Vulcanizing Cement, RV-2 Vulcanizing Cement

Internal identification code: RV-0, RV-1, RV-2

**Relevant identified uses of the substance or mixture and uses advised against:** To adhere cold cure patches on tire tubes and tyres. Remove all sources of ignition. Keep away from heat, open flames, hot surfaces, sparks and not smoke.

This product must not be used for applications other than those recommended in this section.

For further information consult the technical data sheet.

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### 2 Hazards identification

#### 2.1 Classification of the substance or mixture

Labelling according to Regulation (EC) No 1272/2008

Globally Harmonized System (GHS)

#### 2.2 Label elements

Hazard pictograms



Signal word: Danger

Hazard-determining components of labelling:

Distillates (petroleum), C6-rich

Butanone

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### Hazard statements:

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H361 Suspected of damaging fertility or the unborn child.

H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

H372 Causes damage to organs through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

### Precautionary statements:

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3 Other hazards:** Not applicable

## 3 Composition/information on ingredients

### 3.1 Chemical characterization: Mixture

#### Dangerous components:

CAS	Chemical name or technical name	Concentration (%)
CAS: 93165-19-6 EINECS: 296-903-4	Distillates (petroleum), C6-rich Muta. 1A, H340; Carc. 1A, H350; Asp. Tox. 1, H304;	50-60
CAS: 78-93-3 EINECS: 201-159-0	Butanone Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336;	25-35
CAS: 5459-93-8 EINECS: 226-733-8	cyclohexyl(ethyl)amine Acute Tox. 4, H302;	1-2
CAS: 71-43-2 EINECS: 200-753-7	benzene Flam. Liq. 2, H225; Acute Tox. 1, H310; Muta. 1B, H340; Carc. 1A, H350; STOT RE 1, H372; Asp. Tox. 1, H304; Skin Irrit. 2, H315; Eye Irrit. 2, H319;	<0.1

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**Additional information:** P Note: It is not necessary to classify as a carcinogen because the substance contains less than 0,1% w / w benzene.

### 4 First aid measures

#### 4.1 Description of first aid measures

**After inhalation:** If case of indisposition, contact the Toxicology Information Center or a doctor. Bring this MSDS.

Remove the victim to fresh air. If the victim is breathing with difficult, give oxygen. if necessary administer artificial respiration. Seek medical advice.

**After skin contact:** Remove contaminated clothing. Wash exposed skin with large amounts of water for at least 30 minutes. Seek medical advice. Do not palpate nor rub the affected area.

**After eye contact:** Wash immediately with running water for at least 30 minutes, keeping eyelids open. If it's possible, remove contact lenses and seek immediate medical assistance.

**After swallowing:** Do not induce vomiting; call for medical help immediately.

#### 4.2 Most important symptoms and effects, both acute and delayed:

It can cause damages to the central and peripheral nervous systems due to prolonged and repeated exposure.

Aspiration can cause pulmonary oedema and chemical pneumonitis.

It can cause damages to the cardiovascular system with tachycardia and ventricular arrhythmia.

May cause skin irritation with dryness and redness.

May cause eye irritation with tearing, pain and redness.

May cause shortness of breath, cough, dizziness drowsiness, weakness, loss of consciousness and headache.

#### 4.3 Indication of any immediate medical attention and special treatment needed:

Avoid contact with the product when helping the victim.

If necessary, symptomatic treatment should include, above all, support measures to correction of hydro electrolytic and metabolic disturbances, and respiratory assistance.

### 5 Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing agents:** Use chemical-powder (PQS), chemical-foam, or CO<sub>2</sub> sprinkles. Use water-mist spout to cool down adjacencies.

**Unsuitable extinguishing agents:** Jet of water

**5.2 Special hazards arising from the substance or mixture:** Dangerous when exposed to excessive heat or other sources of ignition. The combustion of the product or its packaging can cause irritating and toxic gases, like carbon

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monoxide and dioxide. It can move long distances causing retrogression of flame or new fires both in open environments such as confined. The vapors are denser than air and tend to collect in low or confined areas.

The combustion of the product or its packaging can cause irritating and toxic gases, like carbon monoxide and dioxide. During heating or in case of fire poisonous gases are produced.

**5.3 Advice for firefighters:** Self-contained breathing apparatus (SCBA), complete protective clothing, and leather gloves.

### 6 Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

**For people who are not part of the emergency services:** Eliminate all ignitions sources. Do not smoke.

Do not touch nor walk over spilt product.

Stay away from low areas and keep the wind to your back.

**For people part of the emergency services:** Use waterproof protection clothes, nitrile gloves, closed shoes, protection goggles, and breathing mask for organic vapors. Maintain unauthorized people away.

#### 6.2 Environmental precautions: Prevent seepage into sewage system, workpits and cellars.

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).

Collect the material and put it into adequate containers, duly labeled for further treatment and disposal.

#### 6.4 Reference to other sections: No applicable

### 7 Handling and storage

#### 7.1 Precautions for safe handling: Handle the product in ventilated area or with general ventilation/exhaust system.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**Hygienic measures:** Wash your hands before eating, drinking, smoking or using the toilet. Contaminated clothing should be changed and washed before reuse.

#### 7.2 Conditions for safe storage, including any incompatibilities: Keep in a cool, covered and ventilated area, away from direct sunlight, moisture and strong sources of ozone.

**Prevention of fire and explosions:** Store in heated receptacles. Inspect containers for damage or leaks before handling them.

Remove all sources of ignition. Keep away from heat, open flames, hot surfaces, sparks and not smoke.

**Information about storage in one common storage facility:** Store away from foodstuffs.

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7.3 Specific end use(s): To adhere cold cure patches on tire tubes and tyres.

### 8 Exposure controls/personal protection

#### 8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

<b>71-43-2 - Benzene</b>	
WEL	Long-term value: 3.25 mg/m <sup>3</sup> , 1 ppm Carc; Sk
<b>78-93-3 - Butanone</b>	
ACGIH (2007)	200 ppm
<b>93165-19-6 - Distillates (petroleum), C6-rich</b>	
ACGIH (2014)	TLV-TWA 50 ppm
NIOSH (2011)	REL-TWA 50 ppm
OSHA (2010)	PEL-TWA 500 ppm

Ingredients with biological limit values:

<b>93165-19-6 - Distillates (petroleum), C6-rich</b>	
BEI (ACGIH, 2014)	2.5-hexanedione in urine: 0.4 mg/L (end of last working day)
<b>78-93-3 - Butanone</b>	
BMGV	Methyl ethyl ketone in urine: 2 mg/L (end of the work day)
<b>71-43-2 - Benzene</b>	
ACGIH – Biological determinant of exposure	S-phenylmercapturic capturic acid in urine (1997); EIB: 25µg/g

#### 8.2 Exposure controls

**Limitation and supervision of exposure into the environment:** Steam aspiration systems must be projected in observance to local regulations concerning limits of emission of volatiles substances.

**Engineering control measures:** Provide mechanical ventilation and exhaust system so to maintain the vapor concentration lower than the tolerance limit.

**Eye protection:** Tightly sealed goggles

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**Protection of hands and body:** Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Use waterproof clothes.

**Recommended:** Nitrile gloves

**Respiratory protection:** Semifacial mask with filter for organic vapors.

**Thermal Hazards:** Not applicable

### 9 Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

**Physical state:** Viscous liquid

**Colour:** Light beige

**Odour** Characteristic

**Melting point/freezing point:** No disponible

**Boiling point or initial boiling point and boiling range:** 58 - 79 °C (hexane/butanone)

**Flammability** Não applicable

**Lower and upper explosion limit:** Lower: 1.1 Vol % (hexane) / Upper: 12.6 Vol % (butanone)

**Flash point:** -35 °C (closed cup - hexane)

**Auto-ignition temperature:** 225 °C (hexane)

**Decomposition temperature:** Not available

**pH:** Not available

**Viscosity at 23 °C:** 1.700 – 3.000 cP

**Solubility:** Insoluble (water)

**Partition coefficient: n-octanol/water:** 3.9 log kow (hexane) / 0.29 log kow (butanone)

**Vapour pressure:** 17 kPa (hexane) / 105 mBar (butanone)

**Relative density at 23 °C (water=1):** 0.71 - 0.74 g/cm<sup>3</sup>

**Vapour density (air=1):** 3.0 (hexane) / 2.41 (butanone)

**Particle characteristics:** No applicable

**9.2 Other information:** No further relevant information available.

### 10 Stability and reactivity

**10.1 Reactivity:** May have reactions with incompatible materials.

**10.2 Chemical stability:** Stable in normal use conditions.

**10.3 Possibility of hazardous reactions:** No dangerous reactions known.

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**10.4 Conditions to avoid:** Elevated temperatures. Ignition sources and incompatible materials contact.

**10.5 Incompatible materials:** Strong acids, strong bases, isocyanates, ammonium, amine, pyridine, and compounds with large affinity to the cetone group. Strong agents (liquid chlorine, concentrated oxygen and dinitrogen tetraoxide).

**10.6 Hazardous decomposition products:** During combustion, it can emit acid and toxic gases, carbon oxide, chlorinated products, phosgene, smoke, and particulates.

## 11 Toxicological information

### 11.1 Information on hazard classes

**Acute toxicity:** Product not classified as acute toxic.

#### LD/LC50 values relevant for classification:

##### 93165-19-6 Distillates (petroleum), C6-rich

Oral	LD50	>5.000 mg/kg (rat)
Dermal	LD50	3.000 mg/kg (rat)
Inhalative	LD50/4h	>5.000 ppm (rat)

##### 78-93-3 Butanone

Oral	LD50	2.900 mg/kg (rat)
Dermal	LD50	>8000 mg/kg (rabbit)
Inhalative	LD50/4h	32 mg/L (rat)

##### 71-43-2 Benzene

Oral	LD50	4894 mg/kg (rat)
Dermal	LD50	48 mg/kg (rat)
Inhalative	LD50/4h	9980 mg/L (rat)

**Skin corrosion/irritation:** It can cause irritation, redness, and burning sensation.

**Serious eye damage/irritation:** It can cause eye irritation accompanied by redness.

**Respiratory or skin sensitization:** May cause dermatitis with dryness by repeated or prolonged exposure. Not expected to give rise sensitization breathing.

**Germ cell mutagenicity:** It is not expected mutagenic effects in germ cells.

**Carcinogenicity:** Butanone: carcinogenic effect is not completely confirmed. Tests of lymphoma in mice: negative  
Hexane: benzene concentration inferior to 0.1%, not classified as carcinogenic.

**Reproductive toxicity:** It is not expected to present toxicity to reproduction and lactation.

**Toxicity for specific target organ (STOT) - single exposure:** It can cause respiratory tract irritation and narcotic effects with breathlessness, cough, dizziness, drowsiness, weakness, loss of consciousness and headache.

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*It can cause damages to the central nervous system with loss of conscience and convulsion.*

**Toxicity for specific target organ (STOT) - repeated exposure:** *It can cause damage to the central nervous system and peripheral nervous system by reptida and prolonged exposure.*

**Aspiration hazard:** *The aspiration of the product may cause pulmonary edema and chemical pneumonitis.*

### 12 Ecological information

**12.1 Toxicity:** *Toxic to aquatic life.*

*Hexane: CL50 (fish, 96h): 2.5 mg/L*

*Butanone: CL50 (fish, 96h): 3200 mg/L*

*CE50 (crustacean, 48h): 5091 mg/L*

**12.2 Persistence and degradability:** *It is expected to be inherently biodegradable.*

**12.3 Bioaccumulative potential:** *It does not present bioaccumulative potential in aquatic organisms.*

*Hexane: BCF:200*

*Log kow: 3.90*

*Butanone: BCF: 3000*

*Log Kow: 0.29*

**12.4 Mobility in soil:** *High mobility in soil.*

**12.5 Results of PBT and vPvB assessment:** *Not available*

**12.6 Endocrine disrupting properties:** *Not applicable*

**12.7 Other adverse effects:** *No further relevant information available.*

### 13 Disposal considerations

#### 13.1 Waste treatment method

**Product:** *Treatment and disposal must be specifically evaluated for each product. The requirements of Directive 2008/98/EC, federal, state, and city laws must be consulted. Must not be disposed together with household garbage. Do not allow product to reach sewage system. Packaging (plastic and/or cardboard), if not contaminated, should be discarded in accordance to present law.*

**Product remains:** *Keep the product remains in its original packaging. Disposal should be carried out as established for the product.*

**Uncleaned packaging:** *Disposal must be made according to official regulations.*

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### **14 Transport information**

#### **Land transport, water transportation and Air transport:**

Directive 2008/68/EC, on the inland transport of dangerous goods

International Maritime Organization (IMO)

International Maritime Dangerous Goods Code (IMDG Code)

International Air Transport Association (IATA)

Dangerous Goods Regulation (DGR)

**14.1 UN number or ID number:** UN1133

**14.2 UN proper shipping name:** 1133 ADHESIVES, containing flammable liquid

**14.3 Transport hazard class(es):** 3 Flammable liquids

**14.4 Packing group:** II

**14.5 Environmental hazards:** The product is dangerous for the environment.

**Marine pollutant:** Yes

**Limited quantities (LQ):** 5L

**EMS:** F-E, S-D

**14.6 Special precautions for user:** Not available

**14.7 Maritime transport in bulk according to IMO instruments:** Not applicable

### **15 Regulatory information**

#### **Regulations**

International Maritime Organization (IMO)

International Maritime Dangerous Goods Code (IMDG Code)

International Air Transport Association (IATA)

Dangerous Goods Regulation (DGR)

Directive 2008/68/EC, on the inland transport of dangerous goods

Regulation (CE) No 1907/2006, amended by Regulation (EU) 2020/878

Regulation (EC) No 1272/2008, on classification, labelling and packaging of substances and mixtures

Directive 2008/98/EC, on waste and repealing

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### 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.*

*This form provides information on protection, health, safety and the environment. Note that the handling of any chemical substance requires prior knowledge of its dangers to users.*

*The company using the product is responsible for providing training for its employees and hired parties with regards to the possible adverse risks of the product.*

**Data compared to the previous version altered:** Respiratory protection

#### References:

*International Uniform Chemical Information Database (IUCLID): Available in: <https://iuclid6.echa.europa.eu/>.*

*ECOTOX DATABASE: Available in: <https://cfpub.epa.gov/ecotox/>.*

*Occupational Safety and Health Administration (OSHA): Available in: < [www.osha.gov](http://www.osha.gov) >.*

*American Conference of Governmental Industrial Hygienists (ACGIH). Available in: <https://www.acgih.org/>.*

*National Institute for Occupational Safety and Health (NIOSH). Available in: <https://www.cdc.gov/niosh/index.htm>.*

*BR Petrobras Distribuidora. Material Safety Data Sheet, Solbrax 55/75. Revision date: 16/11/2018.*

*BRENNTAG. Material Safety Data Sheet, Methyl Ethyl Ketone. Revision date: 28/09/2016.*

*BRASKEM, Material Safety Data Sheet, Braskem Ezolem 6/7. Revision date: 15/08/2017.*