

Safety Data Sheet acc. to OSHA HCS

Printing date 03/15/2016

Reviewed on 03/15/2016

1 Identification

- **Product identifier**
- **Trade name:** Vulcanizing Cement
- **Internal identification code:** 470008, 470010, 470011, 470012, 470013, 470035, 470021, 470022, 470023
- **Main recommended uses for the substance or product:** To adhere cold cure patches on tire tubes and tires.
- **Uses advised against:**
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.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Vipal Rubber Corporation
2750 N.W. 84th Avenue
Miami, Florida – 33122 – USA
Phone: 305 640 0330
Fax: 305 640 0310
- **E-mail:** info@vipal-usa.com
- **Emergency telephone number:** +1 305 640 0330

2 Hazard(s) identification

- **Classification of the substance or mixture**

Flam. Liq. 2	H225	Highly flammable liquid and vapor.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Irrit. 2A	H319	Causes serious eye irritation.
Repr. 2	H361	Suspected of damaging fertility or the unborn child.
STOT SE 3	H335-H336	May cause respiratory irritation. May cause drowsiness or dizziness.
STOT RE 1	H372	Causes damage to organs through prolonged or repeated exposure.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.
Aquatic Acute 2	H401	Toxic to aquatic life.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



- **Signal word** *Danger*
- **Hazard-determining components of labeling:**
Distillates (petroleum), C6-rich butanone
- **Hazard statements**

H225	Highly flammable liquid and vapor.
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.

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H304 May be fatal if swallowed and enters airways.

H401 Toxic to aquatic life.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

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

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.

· **Classification system:** Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization:** Mixture

· **Description:** Adhesive based on hexane and butanone, polymers and additives.

· **Dangerous components:**

93165-19-6	Distillates (petroleum), C6-rich	50-70%
78-93-3	butanone	25-35%
5459-93-8	cyclohexyl(ethyl)amine	1-2%

· **Additional information:**

Note P: It is not necessary to classify the substance as cancerigenous, as it contains less than 0.1% m/m of benzene

4 First-aid measures

· **Description of first aid measures**

Long trousers, long or short sleeved shirt or t-shirt, apron and/or waterproof overalls, nitrile gloves, closed shoes, safety goggles for chemical products and helmet.

· **After inhalation:**

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

If case of indisposition, contact the TOXICOLOGY INFORMATION CENTER or a doctor. Bring this SDS.

· **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:**

Thoroughly rinse the victim's mouth with water. Seek medical attention.

Do not induce vomit.

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- **Most important symptoms and effects, both acute and delayed**
 - 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.
 - 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.
- **Indication of any immediate medical attention and special treatment needed**
 - 'If necessary, symptomatic treatment should include, above all, support measures to correction of hydro electrolytic and metabolic disturbances, and respiratory assistance.
 - Avoid contact with the product when helping the victim.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
 - Use chemical-powder (PQS), chemical-foam, or CO2 sprinkles. Use water-mist spout to cool down adjacencies.
- **For safety reasons unsuitable extinguishing agents:** Jet of water.
- **Special hazards arising from the substance or mixture:**
 - Dangerous when exposed to excessive heat or other sources of ignition.
 - During heating or in case of fire poisonous gases are produced.
 - The vapors may produce explosive mixtures with air, reaching a source of ignition and leading to flames.
 - 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.
- **Advice for firefighters:**
- **Protective equipment:**
 - Self-contained breathing apparatus (SCBA), complete protective clothing, and leather gloves.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**
- **For people who are not part of the emergency services:**
 - Do not touch nor walk over spilt product.
 - Eliminate all ignitions sources. Do not smoke.
 - 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.
 - Isolate the area in a radius of at least 50 meters, in all directions.
 - Maintain unauthorized people away.
- **Environmental precautions:**
 - Do not allow to enter sewers/ surface or ground water.
 - Prevent seepage into sewage system, workpits and cellars.
 - Isolate the area of the accident.
 - Stop leaking avoiding contact with the skin and with clothes.
- **Methods and material for containment and cleaning up:**
 - Collect the material and put it into adequate containers, duly labeled for further treatment and disposal.
 - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 - Using water mist or vapor suppressing foam to reduce the dispersion of vapors
 - Dispose contaminated material as waste according to item 13.

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- **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 Handling and storage

- **Handling:**
- **Precautions and directions for safe handling:**
Handle the product in ventilated area or with general ventilation/exhaust system.
Avoid the formation of vapors or mists.
Prohibit drinking, eating and smoking in work areas.
- **Information about fire and explosion protection:**
Keep ignition sources away - Do not smoke.
Avoid the formation of static loads.
- **Hygienic measures:**
Wash your hands before eating, drinking, smoking or using the toilet. Contaminated clothing should be changed and washed before reuse.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Prevention of fire and explosions:**
Remove all sources of ignition. Keep away from heat, open flames, hot surfaces, sparks and not smoke.
Inspect containers for damage or leaks before handling them.
Store in a dry and ventilated place, keeping the containers closed.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Specific end use(s)** To adhere cold cure patches on tire tubes and tires.

* 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
Hexane:
ACGIH (2014) TLV-TWA 50 ppm
NIOSH (2011) REL-TWA 50 ppm
OSHA (2010) PEL-TWA 500 ppm

Butanone:
ACGIH (2007) 200 ppm
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

78-93-3 butanone

PEL	Long-term value: 590 mg/m ³ , 200 ppm
REL	Short-term value: 885 mg/m ³ , 300 ppm Long-term value: 590 mg/m ³ , 200 ppm
TLV	Short-term value: 885 mg/m ³ , 300 ppm Long-term value: 590 mg/m ³ , 200 ppm
BEI	

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· **Ingredients with biological limit values:**

Hexane:

BEI (ACGIH, 2014): 2,5-hexanedione in urine: 0.4 mg/l (end of last working day)

Butanone:

BEI (ACGIH, 2014): methylethylketone in urine: 2 mg/l (end of the working day)

· **Engineering control measures:**

Provide mechanical ventilation and exhaust system to maintain the vapor concentration lower than the tolerance limit.

· **Personal protective equipment:**

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Indication: breathing mask for organic vapors

· **Protection of hands and body:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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. 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.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Use waterproof clothes.

Recommended: Nitrile gloves

· **Thermal Hazards:** Not available.

· **Eye protection:**



Tightly sealed goggles

· **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.

9 Physical and chemical properties

· **Appearance:**

Form:

Viscous liquid

Color:

Light beige

· **Odour and odour limit:**

Characteristic

· **pH**

Not available.

· **Change in condition**

Melting point/Melting range:

-95 °C (-139 °F) (hexane)

Initial boiling point and temperature range:

62-74 °C (144-165 °F) (hexane)

· **Flash point:**

-35 °C (-31 °F) (hexane)

· **Flammability (solid, gaseous):**

Not applicable.

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· Ignition temperature:	225 °C (437 °F) (hexane)
· Decomposition temperature:	Not available
· Self-igniting:	225 °C (hexane) 440 °C (butanone)
· Danger of explosion:	Risk of explosion by shock, friction, fire or other sources of ignition.
· Lower/upper limit of flammability or explosiveness:	
Lower:	1.1 Vol % (hexane)
Upper:	7.5 Vol % (hexane)
· Vapor pressure at 20 °C (68 °F):	17 kPa (hexane)
· Density at 23 °C (73 °F):	0.71-0.74 g/cm ³ (5.925-6.175 lbs/gal)
· Relative density	Not available.
· Vapor density	Not available.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	3.90 log POW (hexane)
· Viscosity:	
Dynamic at 23 °C (73 °F):	1700-3000 cPs
Kinematic at 25 °C (77 °F):	0.45 cSt (hexane)
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity and chemical stability:** Stable in normal use conditions.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** Elevated temperatures. Ignition sources and incompatible materials contact.
- **Incompatible materials:**
Strong acids, strong bases, isocyanates, ammonium, amine, pyridine, and compounds with large affinity to the acetone group.
Strong agents (liquid chlorine, concentrated oxygen and dinitrogen tetroxide).
- **Hazardous decomposition products:**
A toxic gas mixture is formed upon combustion, chiefly containing CO₂ and CO.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**

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Distillates (petroleum), C6-rich
 Oral DL50 > 5000 mg/kg (rat)
 Dermal DL50 3000 mg/kg (rat)
 Inhalative CL50 > 5000 mg/kg (rat)

Butanone
 Oral DL50 2200 mg/kg (rat)
 Dermal DL50 7200 mg/kg (rat)
 Inhalative CL50 4000 mg/kg (rat)

- **Skin corrosion/irritation:** Causes irritation with reddening and drying.
- **Serious eye damage/irritation:** It can cause eye irritation accompanied by redness.
- **Respiratory or skin sensitisation:**
 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:** Suspected of damaging fertility or the unborn child.
- **Toxicity for specific target organ-single exposure:**
 Can cause respiratory tract irritation and narcotic effects with breathlessness, cough, dizziness, drowsiness, weakness, loss of consciousness and headache.
 It can cause damages to the central nervous system with loss of conscience and convulsion.
- **Toxicity for specific target organ-repeated exposure:**
 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

- **Ecotoxicity:**
 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
- **Persistence and degradability**
 Butanone: 98% biodegradable after 28 days
 It is expected rapid degradation and low persistence.
- **Bioaccumulative potential**
 Hexane:
 BCF:200
 Log kow: 3,90
 It does not present bioaccumulative potential in aquatic organisms
- **Mobility in soil**
 Hexane: high mobility on the ground
 Butanone: No available
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods:**· **Product:**

Must be disposed of as hazardous waste in accordance with local regulations. The treatment and disposal must be evaluated for each particular product. Federal, state and municipal laws should be consulted.

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 and properly closed. Disposal should be carried out as established for the product.

· **Uncleaned packagings:**· **Recommendation:**

Do not reuse empty containers. These may contain residues of the product and should be kept closed and sent for proper disposal as required for the product.

14 Transport information

· **UN-Number**· **DOT, ADR, IMDG, IATA**

UN1133

· **UN proper shipping name**· **DOT**

ADHESIVES, containing flammable liquid

· **ADR, IMDG, IATA**

1133 ADHESIVES, containing flammable liquid

· **Transport hazard class(es)**· **DOT**· **Class**

3 Flammable liquids

· **ADR**· **Class**

3 Flammable liquids

· **Label**

3

· **IMDG, IATA**

3 Flammable liquid

· **Packing group**· **DOT, ADR, IMDG, IATA**

II

· **Environmental hazards:**· **Marine pollutant:**

No

· **Special precautions for user**

Warning: Flammable liquids

· **EMS Number:**

F-E,S-D

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **IMDG**

Waterway:

IMO - "International Maritime Organization"

International Maritime Dangerous Goods Code (IMDG

Code)

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· Limited quantities (LQ)	5L
· IATA	Aerial: IATA - "International Air Transport Association" Dangerous Goods Regulation (DGR)
· UN "Model Regulation":	UN1133, ADHESIVES, containing flammable liquid 3, II

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

78-93-3 butanone

14634-93-6 Zinc ethylphenyldithiocarbamate

- **TSCA (Toxic Substances Control Act):**

78-93-3 butanone

14634-93-6 Zinc ethylphenyldithiocarbamate

5459-93-8 cyclohexyl(ethyl)amine

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

78-93-3 butanone

I

14634-93-6 Zinc ethylphenyldithiocarbamate

D, I, II

- **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02

GHS07

GHS08

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· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

*Distillates (petroleum), C6-rich
butanone*

· **Hazard statements**

*H225 Highly flammable liquid and vapor.
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.
H401 Toxic to aquatic life.*

· **Precautionary statements**

*P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P202 Do not handle until all safety precautions have been read and understood.
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.*

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

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.

· **Training hints**

The user of this product should be qualified for handling, operation and application of the product.

· **Date of preparation / last revision** 03/15/2016 / 999

· **Abbreviations and acronyms:**

*Flam. Liq. 2: Flammable liquids, Hazard Category 2
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Repr. 2: Reproductive toxicity, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
Asp. Tox. 1: Aspiration hazard, Hazard Category 1
Aquatic Acute 2: Hazardous to the aquatic environment - AcuteHazard, Category 2*

· **Sources**

SYSTEM OF CHEMICAL EXPOSURE HAZARD (SIRETOX). Available at: <<http://www.siretox.com.br>>. Access: sep. 2015.

BR Petrobras Distribuidora. Material Safety Data Sheet, Hexano BR. Revision 6, 2015.

BRENNTAG. Material Safety Data Sheet, Methyl Ethyl Ketone. Revision 1, 2015.

VERQUIMICA. Material Safety Data Sheet, Methyl Ethyl Ketone. Revision 7, 2014.

· *** Data compared to the previous version altered.**

Amendments regarding the update of the Purple Book.