

**1 Identification**

- **Product identifier**
- **Trade name:** Vulk Cement Fast Dry
- **Internal identification code:** 475204, 475221, 475233, 475205, 475228, 475237
- **Main recommended uses for the substance or product:**  
Vulk Cement is indicated to retread tire processes, by mold cure or precure methods. Is recommended to patch application and inner tube repair, both using hot method.  
For further information consult the technical data sheet.
- **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 2 H371 May cause damage to organs.*
- 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*
- **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.*  
*H371 May cause damage to organs.*

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*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.*

*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.*

*P302+P352 IF ON SKIN: Wash with plenty of water.*

*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.*

**· Other hazards**

**· Results of PBT and vPvB assessment**

**· PBT:** Not applicable.

**· vPvB:** Not applicable.

**\* 3 Composition/information on ingredients**

**· Chemical characterization:** Mixture

**· Description:** Hexane-based adhesive, polymers, fillers and additives.

**· Dangerous components:**

93165-19-6	Distillates (petroleum), C6-rich	70-100%
1333-86-4	Carbon black	2-5%
1314-13-2	zinc oxide	1-2%
71-43-2	benzene	<0.1%

**· 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**

**· 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:**

*Do not induce vomit.*

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

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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**
  - 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 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.
  - The combustion of the product or its packaging can cause irritating and toxic gases, like carbon 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.
- **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:**
  - Isolate the area in a radius of at least 50 meters, in all directions.
  - Use waterproof protection clothes, nitrile gloves, closed shoes, protection goggles, and breathing mask for organic vapors.
- **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:**
  - 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.
  - 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.
- **Information about fire and explosion protection:**  
Avoid the formation of static loads.  
Keep ignition sources away - Do not smoke.
- **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)**  
Vulk Cement is indicated to retread tire processes, by mold cure or precure methods. Is recommended to patch application and inner tube repair, both using hot method.

**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:**

**1333-86-4 Carbon black**

PEL	Long-term value: 3.5 mg/m <sup>3</sup>
REL	Long-term value: 3.5* mg/m <sup>3</sup> *0.1 in presence of PAHs; See Pocket Guide Apps.A+C
TLV	Long-term value: 3* mg/m <sup>3</sup> *inhalable fraction

**1314-13-2 zinc oxide**

PEL	Long-term value: 3.5 mg/m <sup>3</sup>
REL	Long-term value: 3.5* mg/m <sup>3</sup> *0.1 in presence of PAHs; See Pocket Guide Apps.A+C
TLV	Long-term value: 3* mg/m <sup>3</sup> *inhalable fraction

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<b>71-43-2 benzene</b>	
PEL	Short-term value: 15* mg/m <sup>3</sup> , 5* ppm Long-term value: 3* mg/m <sup>3</sup> , 1* ppm *table Z-2 for exclusions in 29CFR1910.1028(d)
REL	Short-term value: 1 ppm Long-term value: 0.1 ppm See Pocket Guide App. A
TLV	Short-term value: 8 mg/m <sup>3</sup> , 2.5 ppm Long-term value: 1.6 mg/m <sup>3</sup> , 0.5 ppm Skin; BEI
<b>93165-19-6 Distillates (petroleum), C6-rich</b>	
NIOSH (2011) REL	TWA 50 ppm
OSHA (2010) PEL	TWA 500 ppm

**· Ingredients with biological limit values:**

<b>71-43-2 benzene</b>	
BEI	25 µg/g creatinine Medium: urine Time: end of shift Parameter: S-Phenylmercapturic acid (background)
	500 µg/g creatinine Medium: urine Time: end of shift Parameter: t,t-Muconic acid (background)
<b>1333-86-4 Carbon black</b>	
	Not established
<b>93165-19-6 Distillates (petroleum), C6-rich</b>	
	Not established
<b>1314-13-2 zinc oxide</b>	
	Not established

**· Engineering control measures:**

Provide mechanical ventilation and exhaust system so 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.

Recommended: Half-face mask with filter 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.

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- 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**

· <b>Appearance:</b>	
<b>Form:</b>	Viscous liquid
<b>Color:</b>	Black
· <b>Odour and odour limit:</b>	Characteristic
· <b>pH</b>	Not applicable.
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	-95 °C (-139 °F) (hexane)
<b>Initial boiling point and temperature range:</b>	62-74 °C (144-165 °F) (hexane)
· <b>Flash point:</b>	-35 °C (-31 °F) (hexane) closed cup
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Ignition temperature:</b>	225 °C (437 °F) (Hexane)
· <b>Decomposition temperature:</b>	Not available.
· <b>Danger of explosion:</b>	Risk of explosion by shock, friction, fire or other sources of ignition.
· <b>Lower/upper limit of flammability or explosiveness:</b>	
<b>Lower:</b>	1.1 Vol % (hexane)
<b>Upper:</b>	7.5 Vol % (hexane)
· <b>Vapor pressure at 20 °C (68 °F):</b>	17 kPa (hexane)
· <b>Density at 20 °C (68 °F):</b>	0.70-,073 g/cm <sup>3</sup> (5.842-,609.185 lbs/gal)
· <b>Relative density</b>	Not available.
· <b>Vapor density</b>	Not available
· <b>Solubility in / Miscibility with Water:</b>	Insoluble.
· <b>Partition coefficient (n-octanol/water):</b>	3.90 log kow (hexane)
· <b>Viscosity:</b>	
<b>Dynamic at 20 °C (68 °F):</b>	420-520 cPs
<b>Kinematic:</b>	Not available.

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· **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 agents (liquid chlorine, concentrated oxygen and dinitrogen tetraoxide).
- **Hazardous decomposition products:**  
A toxic gas mixture is formed upon combustion, chiefly containing CO<sub>2</sub> and CO.

### 11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

**1314-13-2 zinc oxide**

Oral	LD50	> 5000 mg/kg (rat)
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**93165-19-6 Distillates (petroleum), C6-rich**

Oral	DL50	>5000 mg/kg (rat)
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Dermal	DL50	3000 mg/kg (rat)
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Inhalative	CL50	>5000 ppm (rat)
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**1333-86-4 Carbon black**

Oral	LD50	10000 mg/kg (rat)
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**71-43-2 benzene**

Oral	LD50	4894 mg/kg (rat)
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Dermal	LD50	48 mg/kg (mouse)
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Inhalative	LC50/4 h	9980 mg/l (mouse)
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- **Skin corrosion/irritation:** It causes skin irritation with dryness, redness, and cracks.
- **Serious eye damage/irritation:** May cause eye irritation with tearing, pain and 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:** 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:**  
It 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:**  
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.

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**12 Ecological information**

- **Ecotoxicity:**  
*Hexane: LC50 (fish, 96h): 2,5 mg/L*  
*Carbon black: EC50 (algae, 72h): >10.000 mg/L*  
*LC50 (fish, 96h): >1000 mg/L*  
*Zinc oxide: LC50 (fish, 96h): 2246 mg/L*
- **Persistence and degradability** *It is expected that the product presents persistence and is not rapidly degraded.*
- **Bioaccumulative potential**  
*It does not present bioaccumulative potential in aquatic organisms*  
*Hexane: BCF:200*  
*Log kow: 3,90*  
*Zinc oxide: BCF: 3*  
*Log kow: 1,53*
- **Mobility in soil**  
*Hexane: High mobility in soil*  
*Zinc oxide: Low mobility in soil*
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*
- **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**

· <b>UN-Number</b>	
· <b>ADR, IMDG, IATA</b>	UN1133
· <b>UN proper shipping name</b>	
· <b>ADR, IMDG, IATA</b>	1133 ADHESIVES, containing flammable liquid
· <b>Transport hazard class(es)</b>	
· <b>ADR, IMDG, IATA</b>	
· <b>Class</b>	3 Flammable liquids
· <b>Label</b>	3

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· <b>Packing group</b> · <b>ADR, IMDG, IATA</b>	<b>II</b>
· <b>Environmental hazards:</b> · <b>Marine pollutant:</b>	<b>No</b>
· <b>Special precautions for user</b> · <b>EMS Number:</b>	<b>Warning: Flammable liquids</b> <b>F-E,S-D</b>
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	<b>Not applicable.</b>
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Excepted quantities (EQ)</b>	<b>Not applicable.</b>
· <b>IMDG</b>  · <b>Limited quantities (LQ)</b>	<b>Waterway:</b> <b>IMO - "International Maritime Organization"</b> <b>International Maritime Dangerous Goods Code (IMDG Code)</b> <b>5L</b>
· <b>IATA</b>	<b>Aerial:</b> <b>IATA - "International Air Transport Association"</b> <b>Dangerous Goods Regulation (DGR)</b>
· <b>UN "Model Regulation":</b>	<b>UN1133, ADHESIVES, containing flammable liquid 3, II</b>

**15 Regulatory information**

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

· <b>Section 355 (extremely hazardous substances):</b>	
None of the ingredients is listed.	
· <b>Section 313 (Specific toxic chemical listings):</b>	
1314-13-2	zinc oxide
· <b>TSCA (Toxic Substances Control Act):</b>	
1333-86-4	Carbon black
1314-13-2	zinc oxide
7704-34-9	sulphur, precipitated, sublimed or colloidal
57-11-4	stearic acid, pure
120-78-5	di(benzothiazol-2-yl) disulphide
· <b>Proposition 65</b>	
· <b>Chemicals known to cause cancer:</b>	
1333-86-4	Carbon black
· <b>Chemicals known to cause reproductive toxicity for females:</b>	
None of the ingredients is listed.	
· <b>Chemicals known to cause reproductive toxicity for males:</b>	
None of the ingredients is listed.	

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

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

1314-13-2	zinc oxide	D, I, II
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· **TLV (Threshold Limit Value established by ACGIH)**

1333-86-4	Carbon black	A4
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· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

1333-86-4	Carbon black
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· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02    GHS07    GHS08

· **Signal word** *Danger*

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

Distillates (petroleum), C6-rich

· **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.
- H371 May cause damage to organs.
- 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.
- 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.
- P302+P352            IF ON SKIN: Wash with plenty of water.
- 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.

· **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.

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Printing date 08/30/2016

Reviewed on 08/30/2016

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**· Training hints**

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

**· Date of preparation / last revision 08/30/2016 / 1000****· Abbreviations and acronyms:**

Flam. Liq. 2: Flammable liquids – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Repr. 2: Reproductive toxicity – Category 2

STOT SE 2: Specific target organ toxicity (single exposure) – Category 2

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

**· Sources**

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

[www.osha.gov](http://www.osha.gov)

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

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

Amendments regarding the update of the Purple Book.