

## TRANSFORMER OIL - PARAFFINIC UNINHIBITED OIL PU-60



### SECTION 01 - IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY / UNDERTAKING

PRODUCT: "BENZOL® – TRANSFORMER OIL - PARAFFINIC UNINHIBITED OIL PU-60"  
CHEM NAME: MIXTURE (SEE SECTION 2)  
CHEM FAMILY: UNINHIBITED ELECTRICAL INSULATING OIL  
HEALTH HAZARD: NON-HAZARDOUS SUBSTANCE, NON-DANGEROUS GOODS

#### Application

It is Suitable for all types of power, Oil-immersed switchgear, Oil-filled capacitors, Electrical reclosures and distribution transformers. For specific application advice, see appropriate Technical Data Sheet.

#### Company Identification

Benzol Lubricants  
Contact +49 174 2131885  
Mail: [info@benzollubricants.de](mailto:info@benzollubricants.de) - Web: [www.benzollubricants.de](http://www.benzollubricants.de)

Emergency Number: +49 174 2131885 (09:00 - 18:00 – Working hours | Monday - Friday – Working Days)

### SECTION 02 - COMPOSITION AND INFORMATION ON INGREDIENTS

#### Chemical composition

| Composition                                            | Cas no     | Approximate Weight % |
|--------------------------------------------------------|------------|----------------------|
| Distillates (petroleum), hydrotreated light naphthenic | 64742-53-6 | 60-100               |

### SECTION 03 – HAZARDS IDENTIFICATION

This material is not considered to be Hazardous but should be handled in accordance with good industrial hygiene and safety practices.

### SECTION 04 – FIRST AID MEASURES

#### Eye

Wash eye thoroughly with copious quantities of water, ensure eyelids are held open. Obtain medical advice if any pain or redness develops or persists.



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### Skin

Wash skin thoroughly with soap and water as soon as reasonably practicable. Remove heavily contaminated clothing and wash underlying skin.

### Ingestion

If contamination of the mouth occurs, wash out thoroughly with water.

Except as a deliberate act, the ingestion of large amount of product is unlikely. If should occur, do not induce vomiting; obtain medical advice.

### Inhalation

If inhalation of mists, fumes or vapor causes irritation to nose or throat, or coughing remove to fresh air. If symptoms persist, obtain medical advice.

### Medical advice

Treatment should in general be symptomatic and directed to relieving any effects.

## SECTION 05 – FIRE FIGHTING MEASURES

Use foam, dry powder or water fog. Do not use water jets.

Fires in confined spaces should be dealt with by trained personnel wearing approved breathing apparatus. Water may be used to cool nearby heat exposed Areas/object/packages. Avoid spraying directly into storage containers because of the danger of boil-over

### Combustion products

Toxic fumes may be evolved on burning or exposure to heat.

See stability and reactivity, section 10 of this Safety Data Sheet.

## SECTION 06 – ACCIDENTAL RELEASE MEASURES

Contain and recover spilled material using sand or other suitable inert absorbent material.

It is advised that stocks of suitable absorbent material should be held in quantities sufficient to deal with any spillage which may be reasonable anticipated.

Spilled material may make surface slippery.

Protect drains from potential spills to minimize contamination. Do not wash product into drainage system.

In case of large spills, contact appropriate authorities.

In the case of spillage on water, prevent the spread of product by the use of suitable barrier equipment. Recover product from the surface.

Protect environmentally sensitive areas and water supplies.

## SECTION 07 - HANDLING AND STORAGE

Avoid contact with eyes. If splashing is likely to occur wear a full-face visor or chemical goggles as appropriate. Avoid frequent or prolonged skin contact with fresh or used products.

Good working practices, high standards of personal hygiene and plant cleanliness must be always maintained.

Wash hands thoroughly after contact.

Use disposable cloth and discard when solid. Do not put soiled cloth into pockets.



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### Fire prevention

Product contaminated rags, paper or material used to absorb spillages, represent a fire hazard, and should not be allowed to accumulate. Dispose of safely immediately after use.

### Storage condition

Store the products under cover away from heat and sources of ignition.

## SECTION 08 – EXPOSURE CONTROLS & PERSONAL PROTECTION

### Exposure Limits

There is no appropriate occupational exposure limit for this material.

Ensure good ventilation.

Avoid as far as reasonably practicable inhalation of vapor, mists or fumes generated during use.

If vapor, mists or fumes are generated, their concentration in the workplace air should be controlled to the lowest reasonably practicable level.

### Protecting clothing

Wear face visor or goggles in circumstances where eye contact can accidentally occur.

If skin contact is likely, wear impervious protective clothing and/or gloves.

Heavily contaminated clothing as soon as reasonably practicable; dry clean, launder and preferably starch before reuse. Wash any contaminated underlying skin with soap and water.

### Respiratory protection

Respiratory protection is unnecessary, provided the concentration of vapor mists or fumes is adequately controlled. The use of respiratory equipment must be strictly in accordance with the manufacturers in statutory requirements governing its selection and use.



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## SECTION 09 – TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

| Tests                                               | Method                                | Results                                      |
|-----------------------------------------------------|---------------------------------------|----------------------------------------------|
| Appearance                                          | Visual                                | Clear & Bright                               |
| Color                                               | D-1500                                | Transparent                                  |
| Kinematic Viscosity @ 40 °C mm <sup>2</sup> /sec    | ISO-3104                              | <12                                          |
| Kinematic Viscosity @ -30 °C mm <sup>2</sup> /sec   | ISO-3104                              | <1800                                        |
| Pour Point, °C                                      | ISO-3016                              | <-40                                         |
| Water Content (PPM) (Bulk supply)                   | IEC-60814                             | <30 mg/kg                                    |
| Breakdown Voltage (delivered)                       | IEC-60156                             | >30 kV                                       |
| Density @20°C, kg/dm <sup>3</sup>                   | ISO-3675                              | <0.8950                                      |
| Dielectric Dissipation Factor @ 90 °C & 40 to 60 Hz | IEC-60247                             | <0.005                                       |
| Acidity                                             | IEC 62021-1                           | <0.01 mg KOH/gm                              |
| Inter Facial Tension MN/m                           | EN 14210                              | >40                                          |
| Total Sulphur Content                               | IP 373                                | -                                            |
| Corrosive Sulphur                                   | DIN 51353                             | Not Corrosive                                |
| Potentially Corrosive Sulphur                       | IEC 62535                             | Not Corrosive                                |
| DBDS (Dibenzylsulphide) mg/kg                       | IEC 62697                             | Not detectable <5mg/kg                       |
| Inhibitors of IEC 60666                             | IEC 60666                             | (U) Uninhibited Oil; Not Detectable (<0.01%) |
| Metal Passivator Additives mg/kg                    | IEC 60666                             | Not Detectable                               |
| 2 Furfural Content mg/kg/gm                         | IEC-61198                             | Not Detectable                               |
| Oxidation Stability @120°C,<br>500 HRS              | IEC 61125:1992<br>INHIBITED OIL: 500h | <1.2                                         |
| (A.) Total Acidity mg KOH /gm                       | 1.9.4 of IEC 61125:1992               | <0.8                                         |
| (B.) Sludge %                                       | 1.9.1 of IEC 61125:1992               | <0.5                                         |
| (C.) DDF @ 90 °C                                    | 1.9.6 Of IEC 61125:1992               |                                              |
| Flash Point                                         | ISO 2719                              | >135 °C                                      |
| PCA Content %                                       | BS-2000 PART 346                      | <3.0%                                        |
| PCB Content mg/kg/gm                                | IEC-61619                             | Not Detectable                               |

## SECTION 10 – STABILITY &amp; REACTIVITY

**Chemical Stability**

Products of this type are stable and unlikely to react in a hazardous manner under normal conditions of use.  
Hazardous polymerization reaction will not occur.

**Materials to avoid**

Avoid contact with strong oxidizing agents.



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### Hazardous decomposition product

Thermal decomposition products will vary with conditions.

Incomplete combustion will generate smoke, carbon dioxide and hazardous gases, including carbon monoxide, hydrogen Sulfide and oxides of Sulphur and phosphorus.

## SECTION 11 – TOXICOLOGICAL INFORMATION

### Eyes

Unlikely to cause more than transient stinging or accidental eye contact occurs.

### Skin

Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated exposure may lead to dermatitis.

### Used oils

Combustion products resulting from the operation of internal combustion contaminate oils during use. Used oil may contain hazardous components which have the potential to cause skin cancer. Frequent or prolonged contact with all types and makes of used oil must therefore be avoided. A high standard of personal hygiene maintained.

### Ingestion

Unlikely to cause harm if accidentally swallowed in small doses. Larger quantities may cause nausea and diarrhea.

### Inhalation

At normal ambient temperatures this product will be to present an inhalation hazard. Its low volatility may cause irritation to eyes, nose and throat due to exposure to vapor, mists or fumes. Inhalation of exposure to vapor, mists or fumes resulting from thermal decomposition product occurs.

## SECTION 12 – ECOLOGICAL INFORMATION

### Mobility

Spillages may penetrate the soil causing ground water contamination.

### Persistence and degradability

This product is inherently bio-degradable.

### Bio accumulative potential

There is no evidence to suggest bioaccumulation will occur.

### Aquatic toxicity

Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.



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### SECTION 13 – DISPOSAL CONSIDERATION

Where possible, arrange for product to be recycled.

Dispose of via an authorized person / licensed waste disposal contractor in accordance with local regulations. Incineration may be carried out under controlled conditions provided that local regulations for emissions are met.

### SECTION 14 – TRANSPORT INFORMATION

Not classified as hazardous for transport (ADR, RID, UN, IMO, IATA / CAO)

### SECTION 15 – REGULATORY INFORMATION

Not classified as hazardous for supply.

### SECTION 16 – OTHER INFORMATION

This data sheet and the health safety and environmental information it contains, is considered to be accurate as of the date specified below. We have reviewed any information contained herein which we received from sources outside of the company. However, no warranty or representation, express or implied is made as to the accuracy or completeness of the data and information contained in this data sheet.

Health and safety precaution and environmental advice noted in this data sheet may not be accurate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission, recommendation or authorization given or implied to practice any patented invention without a valid license. The company shall not be responsible for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from any hazard inherent in the nature of the material.

