

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date: 27.05.2009

Revision: 27.05.2009

1 Identification of substance/preparation and of the company/undertaking:

- **Product details:**
- **Trade name:** 112B Biodegradable Hydraulic Fluid ISO 32, ISO 46
- **Application of the substance / the preparation** Lubricant
- **Supplier/Manufacturer:**
FGS GmbH
Fahrzeug- und AI- Systeme
Weidenäcker 2
D-78355 Hohenfels
Tel.: +49-7557-9288-0
Fax: +49-7557-9288-18
www.fgs-systems.de
- **Email competent person:** sonja.fischer@kft.de
- **Information department:** See supplier/manufacturer
- **Emergency information:** Giftinformationszentrale Göttingen Tel.: +49-551-19240

2 Hazards identification

- **Hazard description:** not applicable
- **Information pertaining to particular dangers for man and environment:**
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**
The classification was made according to the latest editions of the EC-lists, and expanded using company data and specialized literature.

3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:**
CAS: 128-39-2 2,6-di-tert-butylphenol < 2.5%
EINECS: 204-884-0 N; R 51/53
- **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **General information:** If symptoms persist or in case of doubt seek medical advice.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Remove soiled clothes and shoes.
Wash with water and soap.
Generally the product does not irritate the skin.
- **After eye contact:** Rinse the eyes with open eyelids for 10 - 15 minutes with water. Then consult an eye specialist immediately.
- **After swallowing:**
Drink 3-4 glass of milk or water.
Never give anything by mouth to a unconscious person.
Do not induce vomiting.
Call for a doctor immediately.
If vomiting occurs spontaneously:
Hold the head of the casualty low with the body in a prone position in order to avoid aspiration.

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- **Information for doctor:**
 - **The following symptoms may occur:**
 - Nausea
 - Diarrhoea
 - After inhalation of high vapour concentration levels:
 - irritant effect on the respiratory tract
 - **Treatment:** Symptomatic treatment
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5 Fire fighting measures

- **Suitable extinguishing agents:**
 - Carbon dioxide (CO₂)
 - Foam
 - Fire-extinguishing powder
 - Water jet spray
 - Use fire fighting measures that suit the environment.
 - **For safety reasons unsuitable extinguishing agents:** Direct jet water
 - **Special hazards caused by the material, its products of combustion or resulting gases:**
 - In case of fire formation of dense black smoke
 - Dangerous decomposition product see chapter 10: stability and reactivity
 - **Protective equipment:** Wear self-contained respiratory protective device.
 - **Additional information:**
 - Cool endangered receptacles with water spray.
 - Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
 - Move containers from area if it can be done without risk or cool them with water.
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6 Accidental release measures

- **Person-related safety precautions:**
 - Remove persons from danger area.
 - Particular danger of slipping on leaked/spilled product.
 - Avoid contact with eyes and skin.
 - Ensure adequate ventilation
 - Do not smoke - keep ignition sources away
 - **Measures for environmental protection:**
 - Do not allow product to reach sewage system or any water course.
 - Do not allow to penetrate the ground/soil.
 - **Measures for cleaning/collecting:**
 - Absorb with non-combustible material like sand, soil or diatomite.
 - Ensure adequate ventilation.
 - Send for recovery or disposal in suitable receptacles.
 - Dispose contaminated material as waste according to item 13.
 - **Additional information:** No dangerous substances are released.
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7 Handling and storage

- **Handling**
- **Information for safe handling:**
 - Ensure good ventilation/exhaustion at the workplace.
 - Avoid contact with eyes and skin.
 - Avoid inhalation of vapours formed by heated product.
 - Keep away from heat and direct sunlight.

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- **Information about protection against explosions and fires:**



Keep ignition sources away - Do not smoke.

- **Storage**

- **Requirements to be met by storerooms and receptacles:**

Store container tightly sealed at a cool and dry place with sufficient ventilation.

- **Information about storage in one common storage facility:**

do not store with strong oxidizers

Store away from foodstuffs.

Store away from feed.

- **Further information about storage conditions:** Keep receptacle tightly sealed.

- **Storage class** 10 Combustible liquids

8 Exposure controls and personal protection

- **Additional information about design of technical systems:**

Install appropriate mechanical ventilation.

No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Personal protective equipment**

- **General protective and hygienic measures:**

The usual precautionary measures should be adhered to when handling chemicals.

Immediately remove all soiled and contaminated clothing

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

Wash hands before breaks and at the end of work.

Do not eat or drink while working.

- **Breathing equipment:**

Not necessary, if you follow the instructions for use.



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.

- **Protection of hands:**

Oil resistant gloves

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

- **Material of gloves:**

Neoprene

Nitrile rubber, NBR

The selection of suitable depends upon the material, and also upon the quality of the gloves. The degree of protection will vary 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.

- **Penetration time of glove material:**

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

- **Eye protection:** Tightly sealed goggles.

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- **Body protection:** Protective work clothing.
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9 Physical and chemical properties:

· General Information

Form:	Fluid
Colour:	amber
Odour:	Mild

· Change in condition:

Melting point/Melting range: not determined
Boiling point/Boiling range: 149°C

- **Flash point:** 216-241°C (C.O.C (ASTM D-92))
 - **Self ignition temperature:** Product is not self-igniting.
 - **Danger of explosion:** Product does not present an explosion hazard.
 - **Density:** 0.925 g/cm³
 - **Solubility in / Miscibility with Water:** Insoluble
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10 Stability and reactivity

· Thermal decomposition / conditions to be avoided:

To avoid thermal decomposition do not overheat.
 No decomposition if used and stored according to specifications.
 Conditions to be avoided: see chapter 7

- **Materials to be avoided:** Strong oxidants
 - **Dangerous reactions:** No dangerous reactions known
 - **Dangerous products of decomposition:**
 In the case of fire or at high temperatures the formation of the following decomposition products is possible.
 Carbon monoxide
 Aldehyde
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11 Toxicological information

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

128-39-2 2,6-di-tert-butylphenol

Oral LD₅₀ >5000 mg/kg (rat)
 Dermal LD₅₀ 10000 mg/kg (rabbit)

122-39-4 diphenylamine

Oral LD₅₀ 1120 mg/kg (rat)
 Dermal LD₅₀ > 2000 mg/kg (rat)

· Primary irritant effect:

- **on the skin:**
 No irritating effect.
 Continuing or repeated contact with the skin may cause dermatitis.
- **on the eye:** Light irritation possible
- **Sensitization:** No sensitizing effects known.

· Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

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When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological information

- **Information about elimination (persistence and degradability):**
 - **Other information:** Biodegradable after 28 days: 95% (OECD method 301B)
 - **Ecotoxicological effects:**
 - **Aquatic toxicity:**
 - EC₅₀ >10 mg/l (bacteriae)
 - EC₅₀/48h >10 mg/l (daphnia magna)
 - LC₅₀/96h >10 mg/l (fish)
 - **General notes:**
 - Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
 - According to appendix 4 of VwVwS dated 27.7.2005 (German regulation)
 - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
 - Danger to drinking water is possible if large quantities leak into the ground or into water course.
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13 Disposal considerations

- **Product:**
 - **Recommendation:** Disposal according to instructions of local authorities.
 - **Uncleaned packagings:**
 - **Recommendation:** Disposal must be made according to official regulations.
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14 Transport information

- **Land transport ADR/RID (cross-border)**
 - **ADR/RID class:** No hazardous good according to the regulation.
 - **Maritime transport IMDG:**
 - **IMDG Class:** No hazardous good according to the regulation.
 - **Marine pollutant:** No
 - **Air transport ICAO-TI and IATA-DGR:**
 - **ICAO/IATA Class:** No hazardous good according to the regulation.
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15 Regulatory information:

- **Markings according to EC guidelines:**
 - Observe the general safety regulations when handling chemicals
 - The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).
 - **Special labelling of certain preparations:**
 - Safety data sheet available for professional user on request.
 - **National regulations**
 - **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
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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.

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· Relevant R-phrases:

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· Department issuing MSDS:

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Marienstr. 3 D-64347 Griesheim
Postfach 1451 D-64345 Griesheim
Tel.: +49-6155-823241
Fax: +49-6155-823246

· Contact: Dr. Sonja Fischer**· Sources:** MSDS of the supplier

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