

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 10/21/2008

Reviewed on 10/21/2008

1 Identification of substance**· Product details****· Trade name: BioPlus**
Biodegradable chain lubricant**· Article number:** 0781 516 30..**· Application of the substance / the preparation** Chain lubrication oil based on vegetable oils.**· Manufacturer/Supplier:**ANDREAS STIHL AG & Co.KG
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Fax: +49-621-60-92664**2 Composition/Data on components****· Chemical characterization****· Description:** Chain lubrication oil based on vegetable oils, additivated.**· Dangerous components:** Void**· Additional information:** For the wording of the listed risk phrases refer to section 16.**3 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 international guidelines.

· Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· NFPA ratings (scale 0 - 4)Health = 0
Fire = 1
Reactivity = 0

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· **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

4 First aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.

5 Fire fighting measures

- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards caused by the material, its products of combustion or resulting gases:**
In case of fire, the following can be released:
Carbon monoxide (CO)
- **Protective equipment:** Wear breathing protection if necessary.

6 Accidental release measures

- **Person-related safety precautions:**
Particular danger of slipping on leaked/spilled product.
The usual precautionary measures should be adhered to general rules for handling chemicals.
- **Measures for environmental protection:**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, universal binders) and disposal in suitable containers.
- **Additional information:** See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Information for safe handling:** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Storage in a collecting room is required.

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8 Exposure controls and personal protection

- **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 for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:**
 Not required.
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- **Material of gloves**
 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.
- **Penetration time of glove material**
 The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling.

9 Physical and chemical properties

· General Information

Form:	Fluid
Color:	Brown
Odor:	Specific type

· Change in condition

Melting point/Melting range: -2 bis -10 °C (28 bis 14 °F)
Boiling point/Boiling range: Undetermined.

· **Flash point:** > 230 °C (> 446 °F) (DIN ISO 2592)

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density at 15 °C (59 °F):** 0.92 g/cm³ (DIN 51757)

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Viscosity:

Kinematic at 40 °C (104 °F): 80±5 mm²/s (ASTM D 7042)

· Solvent content:

Organic solvents:	0.0 %
Water:	0.0 %
VOC content:	0.0 %

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10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
 No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
 The product is not subject to classification according to internally approved calculation methods for preparations:

12 Ecological information

- **Information about elimination (persistence and degradability):**
- **Other information:**
 Biodegradable to more than 90% (CEC-L-33-T-82).
 Award to the environmental label "Blauer Engel" for quickly biodegradable chain lubricants used for power saws by the German Institute for Quality Assurance and Labelling (RAL).
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water

13 Disposal considerations

- **Product:**
- **Recommendation:**
 The waste code numbers mentioned are recommendations based on the probable use of the product.
 The product is suitable for processing by an approved recycling facility or can be disposed of at any government approved waste disposal facility.
- **Uncleaned packagings:**
- **Recommendation:** Dispose of packaging according to regulations on the disposal of packagings.

14 Transport information

- **DOT regulations:**
- **Hazard class:** No hazardous good
- **Land transport ADR/RID (cross-border):**
- **ADR/RID class:** No hazardous good.
- **Maritime transport IMDG:**
- **IMDG Class:** No hazardous good.
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** Not Restricted.

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· **Transport/Additional information:** Not dangerous according to the above specifications.

15 Regulations

· **Sara**

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

None of the ingredient is listed.

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

None of the ingredients is listed.

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

All ingredients are listed.

· **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.

· **Cancerogeny categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **AGW (German Maximum Workplace Concentration)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

None of the ingredients is listed.

· **Product related hazard informations:**

Observe the general safety regulations when handling chemicals.

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The product is not subject to identification regulations according to directives on hazardous materials.

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.

· **Department issuing MSDS:**

The safety data sheets were drawn up in cooperation with the Umweltkanzlei Dr. Rhein, Phone: +49(0)5066-900990 and the Dekra Umwelt GmbH, Phone: +49(0)511-96355-0.

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

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