

## Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date 13.12.2007

Revision: 13.12.2007

### 1 Identification of substance:

- **Product details:**
- **Trade name: MotoMix**  
**Special fuel for two-stroke engines and 4-MIX-engines**
- **Article number:** 0781 999 6...
- **Application of the substance / the preparation** Hydrocarbon mixture to be used as special fuel.
- **Manufacturer/Supplier:**  
ANDREAS STIHL AG & Co.KG  
Badstr. 115  
D-71336 Waiblingen  
Tel: +49(0)7151-26-3237  
Fax: +49(0)7151-26-8-3237
- **Informing department:**  
Produktmanagement Forsttechnik  
Tel: +49(0)7151-26-3237  
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- **Emergency information:**  
Tel: +49-621-60-43333  
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### 2 Hazards identification

- **Hazard designation:**



Xn Harmful  
F+ Extremely flammable

- **Information pertaining to particular dangers for man and environment**

Has a narcotizing effect.

R 12 Extremely flammable.

R 38 Irritating to skin.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 65 Harmful: may cause lung damage if swallowed.

R 67 Vapours may cause drowsiness and dizziness.

- **Classification system**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

### 3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Special fuel for two-stroke engines and 4-MIX-engines.

- **Dangerous components:**

CAS: 64741-64-6

Naphtha (petroleum), full-range alkylate

50-100%

EINECS: 265-066-7

Xn, Xi, F+; R 12-38-52/53-65-67

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CAS: 13475-82-6	2,2,4,6,6-pentamethylheptane  Xn; R 10-65-66	10-25%
CAS: 78-78-4 EINECS: 201-142-8	methylbutane  Xn,  F+,  N; R 12-51/53-65-66-67	10-25%

· **Additional information**

The product fulfills the Swedish standard SS 155461D:  
 benzene < 0,05 Vol-%, n-hexane < 0,5 Vol-%, aromatic compounds < 0,5 Vol-%, olefins < 0,5 Vol-%.

### 4 First aid measures

- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact**  
Instantly wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.
- **After eye contact**  
Keep eye lids open and rinse them amply with clean running water for at least 15 minutes.  
Seek immediate medical advice.
- **After swallowing**  
Do not induce vomiting in order to prevent an invasion into the lungs.  
Instantly call for doctor.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
Extinguishing powder, foam or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
Can form explosive gas-air mixtures.
- **Protective equipment:**  
Disposal work has to be carried out with breathing protection and explosion-proof equipment.
- **Additional information** Use water to keep fire exposed containers cool.

### 6 Accidental release measures

- **Person-related safety precautions:**  
Keep away from ignition sources  
Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**  
Do not allow product to reach sewage system or water bodies.  
Prevent material from reaching sewage system, holes and cellars.  
If material reaches soil inform authorities responsible for such cases.  
Do not allow to enter drainage system, surface or ground water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).  
Dispose of contaminated material as waste according to item 13.  
Ensure adequate ventilation.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:**  
Store in cool, dry place in tightly closed containers.  
Keep away from heat and direct sunlight.  
Carry out filling operations only at sites with extractors available.

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Ensure good ventilation/exhaustion at the workplace.

Open and handle container with care.

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

Flammable mixtures may be formed in empty containers.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

**Storage**

**Requirements to be met by storerooms and containers:** Store in cool location.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep container tightly sealed.

### 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 compilation were used as basis.

**Personal protective equipment**

**General protective and hygienic measures**

Keep away from foodstuffs, beverages and food.

Take off immediately all contaminated clothing

Wash hands during breaks and at the end of the work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

**Breathing equipment:**

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

**Protection of hands:**

Use gloves of stable material (e.g. Nitrile) - if necessary tricoted to improve the wearability.

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

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

**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.

**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:** Tightly sealed safety glasses.

**Body protection:** Protective work clothing.

### 9 Physical and chemical properties:

**General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	Green
<b>Odour:</b>	Characteristic

**Change in condition**

**Melting point/Melting range:** Not determined

**Boiling point/Boiling range:** < 35 - 180 °C

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· <b>Flash point:</b>	< -18 °C
· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/steam mixtures is possible.
· <b>Critical values for explosion:</b>	
<b>Lower:</b>	1.1 Vol %
<b>Upper:</b>	6.0 Vol %
· <b>Vapour pressure at 50 °C:</b>	< 95 kPa
· <b>Density at 20 °C</b>	0.7 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	0.0 %

### 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:**  
None in case of intended use and storage in compliance with instructions.

### 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritant effect.
- **Sensitization:** No sensitizing effect known.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:  
Harmful  
Irritant  
Smallest amounts which can get into the lungs by means of swallowing or subsequent vomiting can cause a pulmonary oedema or pneumonia.

### 12 Ecological information:

- **Ecotoxicological effects:**

- **Aquatic toxicity:**

#### 64741-64-6 Naphtha (petroleum), full-range alkylate

EC50	10-100 mg/l (Daphnia magna (OECD 202))
	10-100 mg/l (Desmodesmus subspicatus (OECD 201))
LC50	10-100 mg/l (Brachydario rerio (OECD 203))

- **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

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Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

### 13 Disposal considerations

· **Product:**

· **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

The product is suitable for processing by an approved recycling facility or can be disposed of at any government approved waste disposal facility.

The waste code numbers mentioned are recommendations based on the probable use of the product.

· **European waste catalogue**

13 00 00 OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19)

13 07 00 wastes of liquid fuels

13 07 03 other fuels (including mixtures)

15 00 00 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED

15 01 00 packaging (including separately collected municipal packaging waste)

15 01 10 packaging containing residues of or contaminated by dangerous substances

· **Uncleaned packagings:**

· **Recommendation:** Dispose of packaging according to regulations on the disposal of packagings.

### 14 Transport information

· **Land transport ADR/RID (cross-border)**



· **ADR/RID-GGVSE Class:** 3 (F1) Flammable liquids.

· **Kemler Number:** 33

· **UN-Number:** 3295

· **Packaging group:** I

· **Label:** 3

· **Designation of goods:** 3295 HYDROCARBONS, LIQUID, N.O.S.

· **Maritime transport IMDG:**



· **IMDG Class:** 3

· **UN Number:** 3295

· **Label:** 3

· **Packaging group:** I

· **EMS Number:** F-E,S-D

· **Marine pollutant:** No

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· **Correct technical name:** HYDROCARBONS, LIQUID, N.O.S.

· **Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 3

· **UN/ID Number:** 3295

· **Label:** 3

· **Packaging group:** I

· **Correct technical name:** HYDROCARBONS, LIQUID, N.O.S.

### 15 Regulatory information

· **Designation according to EC guidelines:**

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

· **Code letter and hazard designation of product:**



Xn Harmful

F+ Extremely flammable

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

Naphtha (petroleum), full-range alkylate  
 2,2,4,6,6-pentamethylheptane  
 methylbutane

· **Risk phrases:**

12 Extremely flammable.

38 Irritating to skin.

52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

65 Harmful: may cause lung damage if swallowed.

67 Vapours may cause drowsiness and dizziness.

· **Safety phrases:**

9 Keep container in a well-ventilated place.

16 Keep away from sources of ignition - No smoking.

23 Do not breathe fumes.

29 Do not empty into drains.

33 Take precautionary measures against static discharges.

60 This material and its container must be disposed of as hazardous waste.

61 Avoid release to the environment. Refer to special instructions/safety data sheets.

62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

· **National regulations**

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

### 16 Other information:

These data are based on our present knowledge. However, they 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**

- 10 Flammable.
- 12 Extremely flammable.
- 38 Irritating to skin.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 65 Harmful: may cause lung damage if swallowed.
- 66 Repeated exposure may cause skin dryness or cracking.
- 67 Vapours may cause drowsiness and dizziness.

**· Department issuing data specification sheet:**

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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