Safety data sheet

1. Substance/preparation and company identification

**FASTAC**

Use: crop protection product, insecticide

Company:
BASF SE
67056 Ludwigshafen
GERMANY
Operating Division Crop Protection
Telephone: +49 621 60-27777
Telefax number: +49 621 60-27125
E-mail address: Produktinformation-Pflanzenschutz@basf.com

Emergency information:
International emergency number:
Telephone: +49 180 2273-112

2. Hazard identification

Possible Hazards

Flammable.
Harmful by inhalation and if swallowed.
Irritating to respiratory system and skin.
Risk of serious damage to eyes.
May cause sensitization by skin contact.
Harmful: danger of serious damage to health by prolonged exposure if swallowed.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Harmful: may cause lung damage if swallowed.
Vapours may cause drowsiness and dizziness.
May cause paraesthesia.
3. Composition/information on ingredients

Chemical nature

crop protection product, insecticide, emulsion concentrate (EC)

Hazardous ingredients according to Directive 1999/45/EC

alpha-cypermethrine
Content (W/W): 10.9 %
CAS Number: 67375-30-8
EC-Number: 257-842-9
Hazard symbol(s): T, N
R-phrase(s): 20, 25, 37/38, 48/22, 50/53

Solvent naphtha (petroleum), light arom.
Content (W/W): >= 78 % - <= 80 %
CAS Number: 64742-95-6
EC-Number: 265-199-0
INDEX-Number: 649-356-00-4
Hazard symbol(s): Xn, N
R-phrase(s): 10, 37, 51/53, 65, 66, 67

Dodecyl benzene sulfonate, calcium salt
Content (W/W): >= 2.2 % - <= 2.7 %
CAS Number: 26264-06-2
EC-Number: 247-557-8
Hazard symbol(s): Xi
R-phrase(s): 38, 41

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs.
Content (W/W): 0.1 %
CAS Number: 68608-88-8
EC-Number: 271-807-5
Hazard symbol(s): C, N
R-phrase(s): 22, 34, 51/53

The wording of the hazard symbols and R-phrases is specified in chapter 16 if dangerous ingredients are mentioned.

4. First-Aid Measures

General advice:
Avoid contact with the skin, eyes and clothing. Take off immediately all contaminated clothing. If difficulties occur: Obtain medical attention. Show container, label and/or safety data sheet to physician.
If inhaled:
Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:
After contact with skin, wash immediately with plenty of water and soap. If irritation develops, seek medical attention.

On contact with eyes:
Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:
Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Note to physician:
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
water spray, carbon dioxide, foam

Specific hazards:
carbon monoxide, hydrogen chloride, hydrogen cyanide, organochloric compounds
The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:
In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

Personal precautions:
Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Remove contaminated clothes, undergarments and shoes immediately.

Environmental precautions:
Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.
Methods for cleaning up or taking up:
For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).
For large amounts: Dike spillage. Pump off product.
Cleaning operations should be carried out only while wearing breathing apparatus. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Incinerate or take to a special waste disposal site in accordance with local authority regulations.

7. Handling and Storage

Handling
No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:
The product is combustible. Vapours may form ignitable mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Storage
Segregate from foods and animal feeds. Segregate from strong bases.

Storage stability:
Storage duration: 36 Months

Protect from temperatures below: 0 °C
The product can crystallize below the limit temperature.
Protect from temperatures above: 30 °C
Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

8. Exposure controls and personal protection

Personal protective equipment
Respiratory protection:
Breathing protection if gases/vapours are formed. Wear respiratory protection if ventilation is inadequate. Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:
Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other
Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:
The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is recommended. Take off immediately all contaminated clothing. Store work clothing separately. Keep away from food, drink and animal feeding stuffs. No eating, drinking, smoking or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the end of the shift.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>clear</td>
</tr>
<tr>
<td>Odour</td>
<td>solvent-like</td>
</tr>
<tr>
<td>pH value</td>
<td>4.9 (water, 1%(m), 20 °C)</td>
</tr>
<tr>
<td>Boiling range</td>
<td>150 - 185 °C</td>
</tr>
<tr>
<td>Flammability</td>
<td>Flammable</td>
</tr>
<tr>
<td>Flash point</td>
<td>approx. 44 °C</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>approx. 0.2 kPa (20 °C)</td>
</tr>
<tr>
<td>Density</td>
<td>0.914 g/cm³ (20 °C)</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>emulsifiable</td>
</tr>
<tr>
<td>Partitioning coefficient n-octanol/water (log Pow)</td>
<td>5.1 - 5.9 (OECD Guideline 117)</td>
</tr>
<tr>
<td>Surface tension</td>
<td>&lt; 33 mN/m (25 °C)</td>
</tr>
<tr>
<td></td>
<td>&gt; 23 mN/m (40 °C)</td>
</tr>
</tbody>
</table>
10. Stability and Reactivity

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
strong bases

Hazardous reactions:
No hazardous reactions if stored and handled as prescribed/indicated.

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Acute toxicity

Experimental/calculated data:
LD50 rat (oral): > 210 - < 1,050 mg/kg
LC50 rat (by inhalation): 2.19 mg/l 4 h
The product has not been tested. The statement has been derived from products of a similar structure and composition.
LD50 rat (dermal): > 5,000 mg/kg

Irritation

Experimental/calculated data:
Skin corrosion/irritation rabbit: Irritant.
Serious eyes damages/irritation rabbit: Risk of serious damage to eyes.

Respiratory/Skin sensitization

Experimental/calculated data:
Mouse Local Lymph Node Assay (LLNA) mouse: Caused skin sensitization in animal studies. (OECD Guideline 429)

Other relevant toxicity information

May cause paraesthesia. Misuse can be harmful to health.
12. Ecological Information

Ecotoxicity

Toxicity to fish:
LC50 (96 h) 0.025 mg/l, Oncorhynchus mykiss

Aquatic invertebrates:
EC50 (48 h) 0.00061 mg/l, Daphnia magna

Aquatic plants:
EC50 (72 h) > 85.4 mg/l (growth rate), Pseudokirchneriella subcapitata

Persistence and degradability

Elimination information:
Not readily biodegradable (by OECD criteria).
The product has not been tested. The statement has been derived from products of a similar structure and composition.

Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

13. Disposal Considerations

Must be dumped or incinerated in accordance with local regulations.

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Land transport

ADR
Hazard class: 3
Packing group: III
ID number: UN 1992
Hazard label: 3, 6.1, EHSM
Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (contains SOLVENT NAPHTHA, ALPHA-CYPERMETHRIN 11%)
RID
Hazard class: 3
Packing group: III
ID number: UN 1992
Hazard label: 3, 6.1, EHSM
Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (contains SOLVENT NAPHTHA, ALPHA-CYPERMETHRIN 11%)

Inland waterway transport
ADNR
Hazard class: 3
Packing group: III
ID number: UN 1992
Hazard label: 3, 6.1, EHSM
Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (contains SOLVENT NAPHTHA, ALPHA-CYPERMETHRIN 11%)

Sea transport
IMDG
Hazard class: 3
Packing group: III
ID number: UN 1992
Hazard label: 3, 6.1, EHSM
Marine pollutant: YES
Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (contains SOLVENT NAPHTHA, ALPHA-CYPERMETHRIN 11%)

Air transport
IATA/ICAO
Hazard class: 3
Packing group: III
ID number: UN 1992
Hazard label: 3, 6.1
Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (contains SOLVENT NAPHTHA, ALPHA-CYPERMETHRIN 11%)

15. Regulatory Information

Regulations of the European union (Labelling) / National legislation/Regulations

EEC Directives:
Hazard symbol(s)
Xn  Harmful.
N  Dangerous for the environment.

R-phrase(s)
R10  Flammable.
R20/22  Harmful by inhalation and if swallowed.
R37/38  Irritating to respiratory system and skin.
R41  Risk of serious damage to eyes.
R43  May cause sensitization by skin contact.
R48/22  Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50/53  Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65  Harmful: may cause lung damage if swallowed.
R67  Vapours may cause drowsiness and dizziness.

S-phrase(s)
S2  Keep out of the reach of children.
S13  Keep away from food, drink and animal feeding stuffs.
S20/21  When using do not eat, drink or smoke.
S24  Avoid contact with skin.
S35  This material and its container must be disposed of in a safe way.
S37  Wear suitable gloves.
S57  Use appropriate container to avoid environmental contamination.
S62  If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Hazard determining component(s) for labelling: Solvent naphtha (petroleum), light arom., ALPHA-CYPERMETHRINE

The product contains: ALPHA-CYPERMETHRINE
May cause paraesthesia.

Other regulations

For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2)

16. Other Information

Full text of hazard symbols and R-phares if mentioned as hazardous components in chapter 3:
T  Toxic.
N  Dangerous for the environment.
Xn  Harmful.
Xi  Irritant.
C  Corrosive.
20  Harmful by inhalation.
25  Toxic if swallowed.
37/38  Irritating to respiratory system and skin.
48/22  Harmful: danger of serious damage to health by prolonged exposure if swallowed.
50/53  Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
10  Flammable.
37  Irritating to respiratory system.
51/53  Toxic 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.
38  Irritating to skin.
41  Risk of serious damage to eyes.
22  Harmful if swallowed.
34  Causes burns.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.