

**BIOPOWER SL274 4X5L BOT IE**Version 2 / EU
102000014551/6
Revision Date: 20.09.2007
Print Date: 07.03.2008**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name	BIOPOWER SL274 4X5L BOT IE
Product code (UVP)	05946085
Usage	Adjuvant
Company	Bayer CropScience AG Alfred-Nobel-Straße 50 40789 Monheim Germany
Telephone	+49(0)2173-38-3373
Telefax	+49(0)2173-38-7394
Responsible Department	Material and Transport Safety Management +49(0)2173-38-3409/4566 Email: INFO.EHS@bayercropscience.com
Emergency telephone number	+49(0)2133-51-4233 (Sicherheitszentrale Dormagen, Bayer AG)

2. HAZARDS IDENTIFICATION**Risk advice to man and the environment**

Irritating to eyes and skin.
Harmful to aquatic organisms.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical nature**

Soluble concentrate (SL)
Coformulant, contains alkylethersulfate

Hazardous components

Chemical Name	CAS-No. / EINECS-No.	Symbol(s)	R-phrase(s)	Concentration [%]
Alkylethersulfate, sodium salt	68891-38-3	Xi	R38, R41	27,00
Perfluorinated phosphinic-/phosphonic acids		Xn, N	R22, R51/53	>= 0,10 - <= 1,00
Ethoxylated tallow alkyl amines	61791-26-2	Xn, N	R22, R41, R51/53	>= 0,10 - <= 1,00

For the full text of the R phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES**General advice**

Remove contaminated clothing immediately and dispose of safely.

Skin contact

Wash off with soap and water.



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Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

Ingestion

When swallowed accidentally, do not induce vomiting, get medical help. Rinse mouth.

Notes to Physician

Symptoms

Irritation

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam
Carbon dioxide (CO₂)
Dry powder
Water spray

Specific hazards during fire fighting

In the event of fire the following can be released:
Sulphur oxides

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Use personal protective equipment.

Environmental Precautions

Do not allow to get into surface water, drains and ground water.
If the product contaminates rivers, lakes or drains inform respective authorities.

Methods for Cleaning Up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
Keep in suitable, closed containers for disposal.

Additional Advice

Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

7. HANDLING AND STORAGE

Handling

Advice on safe handling
Use only in area provided with appropriate exhaust ventilation.

Storage

Requirements for storage areas and containers
Keep away from direct sunlight.
Keep containers tightly closed in a dry, cool and well-ventilated place.

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Protect from freezing.

Advice on common storage

Keep away from food, drink and animal feedingstuffs.

Storage stability

Storage period 24 Months

Storage temperature < 30 °C

Other data Storage temperature should ideally lie between 0 and 30 °C, however, storage for two weeks at 54 °C has shown no adverse effects regarding product safety or stability.

Suitable materials

HDPE (high density polyethylene)

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Personal protective equipment**

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory Protection	No personal respiratory protective equipment normally required. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.
Hand Protection	Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness 0,40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.
Eye protection	Wear goggles conforming to EN166 (Field of Use 5 or equivalent).
Skin and body protection	Wear standard coverall and type 6 suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.
Hygiene measures	When using, do not eat, drink or smoke. Wash hands immediately after work, if necessary take a shower. Remove soiled clothing immediately and clean thoroughly before using again. Keep working clothes separately. Handle in accordance with good industrial hygiene and safety practice.
Protective measures	Avoid contact with skin and eyes.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

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Form	liquid, clear to slightly turbid
Colour	colourless to light brown
Odour	soapy, mild
Safety data	
pH	4,5 - 5,8 at 100 % (23 °C)
Boiling point/ range	approx. 100 °C
Flash point	> 100 °C No flash point - Determination conducted up to the boiling point.
Density	approx. 1,04 g/cm ³ at 20 °C
Water solubility	> 700 g/l at 20 °C soluble
Partition coefficient: n-octanol/water	log Pow: < 2,01
Viscosity, dynamic	<= 300 mPa.s at 20 °C Velocity gradient 100 /s
Surface tension	approx. 28,2 mN/m at 25 °C
Surface tension	approx. 29,4 mN/m at 20 °C

10. STABILITY AND REACTIVITY

Hazardous Reactions	No hazardous reactions when stored and handled according to prescribed instructions. Stable under recommended storage conditions.
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11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	LD50 (rat) > 2.000 mg/kg
Acute Dermal Toxicity	LD50 (rat) > 2.000 mg/kg
Skin Irritation	Irritating to skin. (rabbit)
Eye Irritation	Irritating to eyes. (rabbit)
Sensitization	Non-sensitizing. (guinea pig) OECD Test Guideline 406, Magnusson & Kligman test
Assessment Mutagenicity	Not mutagenic in Ames Test.
Further information	The toxicological information is based on the main component.

12. ECOLOGICAL INFORMATION

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Biodegradability 96 % (DOC decrease)
Exposure time: 28 d
Readily biodegradable.
EC-Method C.4-B: MODIFIED OECD-SCREENING TEST / OECD 301 E

Ecotoxicity effects

Toxicity to Fish LC50 (Rainbow trout (*Oncorhynchus mykiss*)) 14,8 mg/l
Exposure time: 96 h

Toxicity to daphnia EC50 (Water flea (*Daphnia magna*)) 18 mg/l
Exposure time: 48 h

Toxicity to algae EC50 (*Scenedesmus subspicatus*) 10,1 mg/l
Exposure time: 72 h

Toxicity to bacteria EC10 (*Pseudomonas putida*) > 1.000 mg/l
Exposure time: 16 h

Further information on ecology

Additional ecological information
Ecological data refer to the main components.

13. DISPOSAL CONSIDERATIONS**Product**

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

Contaminated packaging

Do not use containers for other products.
Dispose of as unused product.

Waste key for the unused product

020108 agrochemical waste containing dangerous substances

14. TRANSPORT INFORMATION

According to national and international transport regulations not classified as dangerous goods.

15. REGULATORY INFORMATION**Classification and labelling in accordance with the EC Directive on dangerous preparations 1999/45/EC as amended.**

Classification:
Hazard warning labelling compulsory

Symbol(s)
Xi Irritant



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R-phrase(s)
R36/38

Irritating to eyes and skin.

S-phrase(s)
S26

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Exceptional labelling

To avoid risks to man and the environment, comply with the instructions for use.

Occupational health precautions

Work limitations for youth should be observed: 94/33/EC.

16. OTHER INFORMATION

Further information

Text of R phrases mentioned in Section 3:

R22 Harmful if swallowed.

R38 Irritating to skin.

R41 Risk of serious damage to eyes.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information given in this Data Sheet has been included in accordance with the guidelines established by Regulation (EC) 1907/2006. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.
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