

PRODUCT SAFETY INFORMATION SHEET

BASF

PRODUCT: **SIGNUM**

DATE: 06/03/2006

VERSION: 4

PAGE: 1 of 6

1. SUBSTANCE/PREPARATION AND COMPANY NAME

Product Name: **SIGNUM**
MAFF Number: 11450
Company: BASF plc
PO Box 4
Earl Road
Cheadle Hulme
Cheadle
Cheshire SK8 6QG

Tel: 0161 485 6222

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Emergency information: 0161 485 6222 (24 hours)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Use: Agricultural / Horticultural fungicide.

Formulation: A water dispersible granule containing 26.7% w/w boscalid and 6.7% w/w pyraclostrobin

<u>Hazardous ingredients</u>	<u>CAS No.</u>	<u>w/w</u>	<u>Symbol</u>	<u>R Phrases</u>
Boscalid	188425-85-6	26.7	N (Dangerous for the environment)	R51/53
Pyraclostrobin	175013-18-0	6.7%	Xn (Harmful) N (Dangerous for the environment)	R20, R38, R50/53
\ Sodium diisobutyl naphthalene sulphonate	27213-90-7	2.4%	Xn (Harmful)	R20/22, R36/38, R52/53

3. HAZARDS IDENTIFICATION



HARMFUL



DANGEROUS FOR THE ENVIRONMENT

HARMFUL IF SWALLOWED (R22).

VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT (R50/53).

Format based on 91/155/EEC

\ A backslash in the left hand margin indicates an amendment from the previous version.

4. FIRST AID MEASURES

- General advice: If a person thinks that they have been exposed to this product and feels unwell, call a doctor or take them to a hospital. Remove all contaminated clothing. Keep them at REST away from source of contamination. DO NOT ALLOW smoking or eating. First aider should avoid becoming contaminated and wear protective clothing if necessary.
- Eye contact: Immediately irrigate affected eyes for at least 15 minutes under flowing water, with eyelids open.
- Skin contact: Immediately remove contaminated clothing and footwear and flush skin with plenty of water. Wash affected area thoroughly with soap and water as soon as possible.
- Ingestion: DO NOT INDUCE VOMITING. Wash out mouth with clean water. Seek medical attention immediately.
- Inhalation: Keep person calm, remove to fresh air.
- Unconsciousness: If danger of loss of consciousness, place person in recovery position. Apply artificial ventilation if necessary, but care must be taken to avoid contamination of the first aider.

GUIDE TO PHYSICIAN - general advice

Active ingredient group: Boscalid - anilide fungicide in the carboxamide group.
Pyraclostrobin - strobilurin fungicide.

Toxic effects: The material is of moderate general toxicity.

Symptoms of accidental over exposure: There is no documentation of pathological effects in humans.

Any unusual symptoms which occur after exposure (by any mode of entry) should be recorded and reported to BASF at Cheadle.

- (i) Treatment should be symptomatic and supportive based on judgement of physician.
- (ii) If the product has been swallowed, gastric lavage with proper laryngeal control may be necessary. For ingestion of small quantities activated charcoal as an absorbent in a dosage of 30 grams in 100ml of water may be considered.
- (iii) Maintenance of ventilation and oxygen therapy to be used as required.
- (iv) If symptomatic therapy is indicated for control of restlessness, anxiety or convulsions, then Diazepam is recommended as the drug of choice.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Water spray, foam, dry chemical, carbon dioxide.
Possible harmful fumes in a fire:	Carbon-monoxide, hydrogen chloride, nitrogen oxides and organochloric compounds can be released. Avoid breathing smoke or fumes.
Protective equipment:	Self-contained breathing apparatus and protective clothing.
Further information:	Call the Fire Brigade at once to deal with all fires involving pesticides unless the fire is small and immediately controllable. Spray unopened containers with a mist spray to keep cool. If without risk, remove intact containers from exposure to fire. Contain fire-fighting water, bunding if necessary with sand or earth. Do not allow contamination of public drains or surface or ground waters. Dispose of fire debris and contaminated water as advised in the MAFF/HSE "Pesticides: Code of Practice for the Safe Use of Pesticides on Farms and Holdings".

6. ACCIDENTAL RELEASE MEASURES

If spilled:	Wear prescribed protective clothing. Clear spillage immediately. Contain spillage sweep up and collect contaminated material and place in a marked container for disposal. Thoroughly wash area of spillage. Dispose of contaminated materials as advised in the MAFF/HSE "Pesticides: Code of Practice for the Safe Use of Pesticides on Farms and Holdings".
	Wash thoroughly immediately after handling spillages, or at once if contaminated.
Personal protective equipment:	See Section 8.
Environmental precautions:	Do not allow contamination of public drains or surface or ground waters. Inform local water plc if spillage enters drains and the Environment Agency (England & Wales), the Scottish Environmental Protection Agency (Scotland) or the Environment and Heritage Service (Northern Ireland) if it enters surface or ground waters. Keep people and animals away.

7. HANDLING AND STORAGE

Handling:	No special measures are necessary. Avoid contact with skin and eyes. When using do not eat, drink or smoke.
Protection against fire and explosion:	Keep away from sources of ignition. Prevent electrostatic discharge and formation of dust/air mixtures.
Storage:	Keep dry and frostproof in a suitable pesticide store. Store separately from food, drink and animal feed.

8. **EXPOSURE CONTROLS AND PERSONAL PROTECTION**

- (i) SAFETY PRECAUTIONS (from product label)
Precautions marked * are a legal requirement

Operator protection

*Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective clothing:
 *WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate.
 *However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.
WHEN USING DO NOT EAT, DRINK OR SMOKE.
WASH HANDS before meals and after work.
IF SWALLOWED, seek medical advice immediately and show this container or label.

Environmental protection

Do not contaminate surface waters or ditches with chemical or used container.
 * **DO NOT ALLOW DIRECT SPRAY** from horizontal boom sprayers to fall within 5m of the top of the bank of a static or flowing waterbody, unless a Local Environmental Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1m of the top of a ditch which is dry at the time of application.
 Aim spray away from water.
 * This product qualifies for inclusion within the Local Environmental Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with PSD's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for inspection for three years.
 * **DO NOT APPLY MORE THAN 6 kg Signum** to the same area of land per annum.

Storage and disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.
KEEP OUT OF REACH OF CHILDREN.
STORE IN ORIGINAL CONTAINER, tightly closed, in a safe place.
RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely.
 Store in a suitable pesticide store. Keep dry and protect from frost.

- (ii) **PERSONAL PROTECTIVE EQUIPMENT**

In tests with a range of pesticide products, protective gloves made of nitrile rubber at least 0.5mm thick and 300mm long have been found to be the most suitable. Gloves made of butyl rubber, neoprene and PVC can also offer good protection. Gloves must protect the whole hand and wrist and repeated use of these gloves depends upon spillages being washed off immediately. The gloves should be thoroughly washed after each operation.

The wearing of other personal protective equipment may be required to supplement the items listed above. These are described in the MAFF/HSE "Pesticides: Code of Practice for the Safe Use of Pesticides on Farms and Holdings". Decontaminate all personal protective equipment after use. When this is not possible dispose of as contaminated wastes.

- (iii) **OCCUPATIONAL EXPOSURE LIMITS (OESs)**

<u>Hazardous ingredients</u>	<u>Long term</u> <u>exposure limit</u>	<u>Short term</u> <u>exposure limit</u>
Not applicable		

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: Water dispersible granules
Colour: Brownish
Odour: Faint specific odour
Bulk density: 550 - 600 kg/m³
Solubility in water: Dispersible
pH value: 5 - 7 (1% (m) as suspension)

10. STABILITY AND REACTIVITY

Hazardous reactions: None provided product is correctly handled.

Substances to avoid: None known

Hazardous decomposition products: None if stored and handled correctly.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Ingestion:	Moderate toxicity	(LD50 oral (rat):	>200 <500 mg/kg)
Skin contact:	Non-irritant	(LD50 dermal (rat):	>2000 mg/kg)
Inhalation:	Unlikely to cause a problem	(LC50 inhalation (rat) 4h:	>5.6 mg/l)
Eye contact:	Non-irritant		
Sensitising potential:	No sensitising effect		

12. ECOLOGICAL INFORMATION

Ecotoxic effects:	Rainbow trout (<i>Oncorhynchus mykiss</i>) LC50 96h:	0.088 mg/l
	Algae EC/LC50 (72h):	8.43 mg/l
	Daphnia EC/LC50 (48h):	0.24 mg/l

13. DISPOSAL CONSIDERATIONS

Leaking containers: Damaged or leaking containers must be dealt with as soon as noticed by sealing them in impermeable containers.

Disposal of used containers: Follow the directions given in the MAFF/HSE "Pesticides: Code of Practice for the Safe Use of Pesticides on Farms and Holdings".

Disposal of diluted pesticide: Advice for the disposal or re-use of diluted pesticide is given in the MAFF/HSE "Pesticides: Code of Practice for the Safe Use of Pesticides on Farms and Holdings".

14. TRANSPORT INFORMATION

UN Number: : 3077
Packing Group : III

ROAD/RAIL

ADR/RID Class : 9
Environmentally hazardous substance, solid, N.O.S. (contains pyraclostrobin 7%, boscalid 27%).

SEA

IMDG Class : 9
Environmentally hazardous substance, solid, N.O.S. (contains pyraclostrobin 7%, boscalid 27%). Marine Pollutant.

AIR

ICAO/IATA Class : 9
Environmentally hazardous substance, solid, N.O.S. (contains pyraclostrobin 7%, boscalid 27%). Marine Pollutant.

Pack sizes: : 2.5 kg
No per outer: : 4

15. REGULATORY INFORMATION

This product is approved under the "Plant Protection Products Regulations 1995" and is labelled accordingly.

R-phrases - see Section 3

S-phrases - see Section 8

The Control of Substances Hazardous to Health Regulations (COSHH) may apply to the use of this product at work.

16. OTHER INFORMATION

For further medical advice Doctors should contact the National Poisons Information Service.

In an emergency further information can be obtained from the National Chemical Emergency Centre 01865 407 333 (24 hours).

A backslash in the left hand margin indicates an amendment from the previous version.

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.