1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information
Trade name: SONATA
Product code (UVP): 05920841
Usage: fungicide
Company: Bayer CropScience Limited
230 Cambridge Science Park
Milton Road
Cambridge
Cambridgeshire CB4 0WB
Great Britain
Telephone: +44(0)1223 226500
Telefax: +44(0)1223 426240
Emergency telephone number: 0800-220876 (UK 24 hr)
+44(0)1603-242424 (Overseas 24 hr)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature
Water dispersible granules (WG)
Fenamidone/Mancozeb 10:50% WG

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No. / EINECS-No.</th>
<th>Symbol(s)</th>
<th>R-phrase(s)</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mancozeb</td>
<td>8018-01-7</td>
<td>Xi</td>
<td>R37, R43</td>
<td>50.00</td>
</tr>
<tr>
<td>Fenamidone (ISO)</td>
<td>161326-34-7</td>
<td>N</td>
<td>R50/53</td>
<td>10.00</td>
</tr>
<tr>
<td>Sodium methylene polymethyleneanaphthyl sulphonate</td>
<td>81065-51-2</td>
<td>Xi</td>
<td>R41</td>
<td>&gt;= 15.00 - &lt;= 25.00</td>
</tr>
<tr>
<td>Sodium dioctyl sulphosuccinate</td>
<td>577-11-7 209-406-4</td>
<td>Xi</td>
<td>R38, R41</td>
<td>&gt;= 1.00 - &lt;= 5.00</td>
</tr>
<tr>
<td>Kaolin</td>
<td>1332-58-7</td>
<td></td>
<td>&gt;= 1.00 - &lt;= 5.00</td>
<td></td>
</tr>
<tr>
<td>Methenamine</td>
<td>100-97-0 202-905-8</td>
<td>F, Xn</td>
<td>R11, R42/43</td>
<td>&gt;= 1.00 - &lt;= 5.00</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

Risk advice to man and the environment
Irritating to eyes.
May cause sensitization by skin contact.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
4. FIRST AID MEASURES

Inhalation
Move to fresh air.

Skin contact
Take off all contaminated clothing immediately. Wash off with soap and water. If skin irritation persists, call a physician.

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.

Ingestion
Obtain medical attention. Rinse out mouth and give water in small gulps to drink.

Notes to Physician
Symptoms
eye and mucous membrane irritation, dermatitis
Risks
More severe effects if alcohol is consumed.
Treatment
There is no specific antidote.
Treat symptomatically.
Follow-up measures: Strict abstinence from alcohol for 1 - 2 weeks, due to Antabuse effect.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Flood the product with plenty of water.
foam
dry powder

Extinguishing media which must not be used for safety reasons
water fog

Specific hazards during fire fighting
In the event of fire the following can be released:
carbon monoxide (CO)
nitrogen oxides (NOx)
Sulphur oxides

Special protective equipment for fire-fighters
Use breathing apparatus.

Further information
Contain the spread of the fire-fighting media.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Avoid contact with spilled product or contaminated surfaces.
When dealing with a spillage do not eat, drink or smoke.
Environmental Precautions
Do not discharge into the drains/surface water/groundwater.
If spillage enters drains leading to sewage works inform local water company immediately.
If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).

Methods for Cleaning Up
Pick up and fill the product into a tightly closed container.
Use approved industrial vacuum cleaner for removal.

Additional Advice
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

7. HANDLING AND STORAGE

Handling
Advice on safe handling
Smoking, eating and drinking should be prohibited in the application area.
Avoid dust formation.

Advice on protection against fire and explosion
Care should be taken to avoid formation of dust from abraded granules.

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

Advice on common storage
Keep away from food, drink and animal feedingstuffs.

Storage stability
Other data
The storage temperature should lie between 0 °C and 30 °C, maximum up to 50 °C.

Suitable materials
aluminium composite film (min. 0,007 mm Aluminium)

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Refer to COSHH assessment (Control of Substances Hazardous to Health (Amendment) Regulations 2004). Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer also to COSHH Essentials.

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaolin (Respirable dust.)</td>
<td>1332-58-7</td>
<td>2 mg/m³ (TWA)</td>
<td>2005</td>
<td>EH40 WEL</td>
</tr>
</tbody>
</table>

Engineering measures
Provide appropriate exhaust ventilation at places where dust is formed.

Personal protective equipment
Respiratory Protection
Wear respirator conforming to EN149FFP1. 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 3 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form dry free flowable water dispersible granules
Colour bronze
Odour odourless

Safety data
pH 7.1 at 1 % suspension in water
Flammability (solid, gas) The product is not flammable.
Bulk Density 690 kg/m3
Water Solubility dispersible
Oxidizing properties The product has been shown not to be oxidising in a test following Directive 67/548/EEC (Method A17, oxidising properties).
Explosivity Not explosive

10. STABILITY AND REACTIVITY

Self heating May self heat in case of storage in mass at high temperature.

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

   Acute Oral Toxicity        LD50 (rat)  > 2,000 mg/kg
   Acute Dermal Toxicity      LD50 (rat)  > 2,000 mg/kg
   Skin Irritation           Slight irritant effect - does not require labelling. (rabbit)
   Eye Irritation             irritating (rabbit)
   Sensitization             sensitizing (guinea pig)
                              OECD Test Guideline 406, Magnusson & Kligman test

12. ECOLOGICAL INFORMATION

   Ecotoxicity effects
   Toxicity to Fish          LC50 (Rainbow trout (Oncorhynchus mykiss)) 0.23 mg/l
                              Exposure time: 96 h
   Toxicity to daphnia       EC50 (Water flea (Daphnia magna)) 0.15 mg/l
                              Exposure time: 48 h
   Toxicity to algae         IC50 (Scenedesmus subspicatus) 0.66 mg/l
                              Exposure time: 72 h

13. DISPOSAL CONSIDERATIONS

   Product
   In accordance with current regulations may be taken to waste disposal site or incineration plant, after consultation with site operator and/or with the responsible authority. Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).

   Contaminated packaging
   Small containers (< 10 l or < 10 kg) should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times. Add washings to sprayer at time of filling. Dispose of empty and cleaned packaging safely.
   Large containers (> 25 l or > 25 kg) should not be rinsed or re-used for any other purpose. Return large containers to supplier. Follow advice on product label and/or leaflet.

   Waste key for the unused product
   020108  agrochemical waste containing dangerous substances

14. TRANSPORT INFORMATION

   ADR/RID/ADNR
   UN-No                  3077
   Labels                 9
   Packaging group        III
   Hazard no.             90
**15. REGULATORY INFORMATION**

This product has been classified in accordance with The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002: CHIP 3 and any subsequent amendments.

Hazardous components which must be listed on the label:
- Fenamidone (ISO)
- Mancozeb

**Symbol(s)**
- Xi: Irritant
- N: Dangerous for the environment

**R-phrase(s)**
- R36: Irritating to eyes.
- R43: May cause sensitization by skin contact.
- R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Bayer CropScience
SAFETY DATA SHEET according to EC Directive 2001/58/EC

Sonata
Version 4 / GB
102000001522
Revision Date: 06.02.2006
Print Date: 14.07.2008

S-phrase(s)
- 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.

CLASSIFICATION ACCORDING TO SPECIFIC UK REGULATIONS:
The labelling information below is that which has been approved under 'The Control of Pesticides Regulations 1986' and/or 'Part III of the Food and Environment Protection Act 1985' and/or 'Plant Protection Product Regulations 1999' and any subsequent amendments and may differ from that indicated by any toxicological and/or other testing otherwise indicated in this 'Safety Data Sheet'.

Symbol(s)
- Xi Irritant
- N Dangerous for the environment

R-phrase(s)
- R36/37 Irritating to eyes and respiratory system.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)
- S35 This material and its container must be disposed of in a safe way.
- S57 Use appropriate container to avoid environmental contamination.

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

Further information
WHO-classification: III (Slightly hazardous)

16. OTHER INFORMATION

Further information

Text of R phrases mentioned in Section 2:
- R11 Highly flammable.
- R37 Irritating to respiratory system.
- R38 Irritating to skin.
- R41 Risk of serious damage to eyes.
- R42/43 May cause sensitization by inhalation and skin contact.
- R43 May cause sensitization by skin contact.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The above information is intended to give general health and safety guidance on the storage and transport of the product. It is not intended to apply to the use of the product for which purposes the product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with. The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given. The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate. No liability will be accepted for any injury, loss or damage resulting from any failure to take account