SAFETY DATA SHEET
Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) Annex II

Sultan 50 SC
Revision Date 02-Mar-2015
Publish Date 02-Mar-2015

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Sultan 50 SC
Synonyms
Metazachlor 500 SC***
Pure substance/mixture
Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use
Herbicide
Uses advised against
No information available

1.3. Details of the supplier of the safety data sheet

Supplier Address
ADAMA Agricultural Solutions UK Ltd
Unit 15, Thatcham Buisness Village Colthrop Way,
Thatcham Berkshire RG19 4LW, UK : 01635 860555
Fax: 01635 861555

For further information, please contact

Email address
SDS@ADAMA.COM

1.4. Emergency telephone number

Emergency Telephone
National Chemical Emergency Centre (UK):
Tel: 01865 407333 (24 hours)

Section 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Acute toxicity - Oral
Category 4 - (H302)
Skin sensitization
Category 1 - (H317)
Carcinogenicity
Category 2 - (H351)
Acute aquatic toxicity
Category 1 - (H400)
Hazardous to the Aquatic
Category 1 - (H410)
Environment - Chronic Hazard

Classification according to Directive 67/548/EEC or 1999/45/EC
Full text of R-phrases: see section 16
2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

Signal word

Warning

Hazard Statements
H302 - Harmful if swallowed
H317 - May cause an allergic skin reaction
H351 - Suspected of causing cancer
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements
P102 - Keep out of reach of children
P201 - Obtain special instructions before use
P270 - Do not eat, drink or smoke when using this product
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P501 - Dispose of contents/ container to an approved waste disposal plant

EU Specific Hazard Statements
EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

Additional phrases for PPP
SP1 - Do not contaminate water with the product or its container

2.3. Other hazards
No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight-%</th>
<th>CAS No</th>
<th>EC No</th>
<th>Index No</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Classification according to 67/548/EEC</th>
<th>M-Factor</th>
<th>REACH Registration Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metazachlor (ISO)</td>
<td>42.47</td>
<td>67129-08-2</td>
<td>266-583-0</td>
<td>-</td>
<td>Skin Sens. 1 (H317) Carc. 2 (H351) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)</td>
<td>Xi; R43 Carc. Cat. 3; R40 N; R50-53</td>
<td>M=100</td>
<td>-</td>
</tr>
</tbody>
</table>

Full text of R-phrases: see section 16
Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures
General advice
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!

Inhalation
Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Skin Contact
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

Eye contact
Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Ingestion
Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.

Self-protection of the first aider
Use personal protective equipment as required.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms
None known

4.3. Indication of any immediate medical attention and special treatment needed
Note to physicians
Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media
Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
No information available.

5.2. Special hazards arising from the substance or mixture
No specific hazard known.

5.3. Advice for firefighters
In the event of fire, wear self-contained breathing apparatus
In the event of fire and/or explosion do not breathe fumes.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Personal precautions
Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

For emergency responders
Use personal protection recommended in Section 8.

6.2. Environmental precautions
Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up
Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Other Information
See also section 8,13

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling
Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

General Hygiene Considerations
When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM)
The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.2. Exposure controls

Engineering Controls
Ensure adequate ventilation, especially in confined areas.

Personal protective equipment
Eye/face protection
Tight sealing safety goggles.

Body Protection
Suitable protective clothing.

General Hygiene Considerations
When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

Environmental exposure controls
Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>white</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Faint characteristic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

No information available

10.6. Hazardous decomposition products

None under normal use conditions.

Section 11: TOXICOLOGY INFORMATION

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Values</th>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50 mg/kg</td>
<td>1234</td>
<td>Rat</td>
<td>OECD 401</td>
<td></td>
</tr>
<tr>
<td>Dermal LD50 mg/kg</td>
<td>&gt; 4000</td>
<td>Rat</td>
<td>OECD 402</td>
<td></td>
</tr>
</tbody>
</table>
### Chronic toxicity

**Germ cell mutagenicity**  
**Chemical Name** Metazachlor (ISO)  
: Not classified

**Carcinogenicity**  
**Chemical Name** Metazachlor (ISO)  
: Suspected of causing cancer

**Reproductive toxicity**  
**Chemical Name** Metazachlor (ISO)  
: Not toxic for the reproductive system

**STOT - single exposure**  
**Chemical Name** Metazachlor (ISO)  
: Not available

**STOT - repeated exposure**  
**Chemical Name** Metazachlor (ISO)  
: Not available

### Aspiration hazard

**Chemical Name** Metazachlor (ISO)  
: Not available

### Section 12: ECOLOGICAL INFORMATION

#### 12.1. Toxicity

**Aquatic toxicity**

<table>
<thead>
<tr>
<th>Values</th>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.34</td>
<td>Oncorhynchus mykiss</td>
<td>OECD 203</td>
<td></td>
</tr>
<tr>
<td>67.8</td>
<td>Daphnia magna</td>
<td>OECD 202</td>
<td></td>
</tr>
<tr>
<td>0.0437</td>
<td>D. Subspicatus</td>
<td>OECD 201</td>
<td></td>
</tr>
<tr>
<td>0.0203</td>
<td>Lemna gibba</td>
<td>OECD 221</td>
<td>7 days</td>
</tr>
</tbody>
</table>

**Terrestrial Toxicity**

**Birds Oral LD50 mg/kg**  
**Chemical Name** Metazachlor (ISO)  
: > 2000

**Bees Oral LD50 μg/bee**  
**Chemical Name** Metazachlor (ISO)  
: > 72  
EPPO 170

#### 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>137.6</td>
<td>BBA IV 4-1</td>
<td>pH 5.5-7.1</td>
</tr>
</tbody>
</table>
Soil DT50 days
Chemical Name
Metazachlor (ISO) : 10.8 BBA IV: 5-1 pH 5.7-7.2

Biodegradation
Chemical Name
Metazachlor (ISO) : Not readily biodegradable

12.3. Bioaccumulative potential

Partition Coefficient (n-octanol/water) Log Pow
Chemical Name
Metazachlor (ISO) : 2.5 pH 7, 22 ° C

Bioconcentration factor (BCF)
Chemical Name
Metazachlor (ISO) :

12.4. Mobility in soil

Adsorption/Desorption
Chemical Name
Metazachlor (ISO) : 110 OECD 106 Koc

12.5. Results of PBT and vPvB assessment
The components in this formulation do not meet the criteria for classification as PBT or vPvB

12.6. Other adverse effects
No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Waste from residues/unused products
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging
Improper disposal or reuse of this container may be dangerous and illegal.

Other Information
Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORTATION INFORMATION

IMDG/IMO
14.1 UN/ID No 3082
14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metazachlor)
14.3 Hazard Class 9
14.4 Packing Group III
14.5 Marine pollutant Yes
14.6 Special precautions for user

RID/ADR
14.1 UN/ID No 3082
14.2 Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Metazachlor)
14.3 Hazard Class 9
Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.2. Chemical safety assessment
A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required. A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009.

Section 16: OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3
R22 - Harmful if swallowed
R40 - Limited evidence of a carcinogenic effect
R43 - May cause sensitization by skin contact
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Full text of H-Statements referred to under sections 2 and 3
H302 - Harmful if swallowed
H317 - May cause an allergic skin reaction
H351 - Suspected of causing cancer
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Revision Note
*** - Change from previous version.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet