SAFETY DATA SHEET

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

Plenum WG

Revision Date  26-Nov-2018
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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Plenum WG

Pure substance/mixture  Mixture

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

Recommended Use  Insecticide
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   ukenquiries@adama.com

1.4. Emergency telephone number

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

Section 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Carcinogenicity  Category 2 - (H351)
Hazardous to the Aquatic  Category 3 - (H412)
Environment - Chronic Hazard

2.2. Label elements

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

Hazard pictograms
Signal word
Warning

Hazard Statements
H351 - Suspected of causing cancer
H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements
P102 - Keep out of reach of children
P201 - Obtain special instructions before use
P280 - Wear protective gloves/protective clothing/eye protection/face protection
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 (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

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>M-Factor</th>
<th>REACH Registration Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pymetrozine</td>
<td>47-52</td>
<td>123312-89-0</td>
<td>602-927-1</td>
<td>613-202-00-4</td>
<td>Carc. 2 (H351) Aquatic Chronic 3 (H412)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium dibutyl(naphthalenesulphonate)</td>
<td>1-4</td>
<td>25417-20-3</td>
<td>246-960-6</td>
<td></td>
<td>Acute Tox. 4 (H302) Acute Tox. 4 (H332) Eye Dam. 1 (H318) STOT SE 3 (H335)</td>
<td></td>
<td>01-2119980979-09</td>
</tr>
</tbody>
</table>

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. If symptoms persist, call a physician.

Skin Contact
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

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. Immediate medical attention is required.

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.

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**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.

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**Section 6: ACCIDENTAL RELEASE MEASURES**

6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions**  
Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. 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.
Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

**Other Information**  
See also section 8,13

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**Section 7: HANDLING AND STORAGE**

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

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

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.

Hand Protection
Gloves made of plastic or rubber.

Body Protection
Suitable protective clothing.

Respiratory protection
In case of insufficient ventilation, wear suitable respiratory equipment.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice.

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>Solid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>beige</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>chalky</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>9.2-10.2</td>
<td>CIPAC MT 75.3</td>
<td>aqueous solution 1 %</td>
</tr>
<tr>
<td>Melting point/freezing point °C</td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point/boiling range °C</td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point °C</td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td></td>
<td></td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not flammable</td>
<td>EEC A.10</td>
<td></td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td></td>
<td></td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Vapor pressure kPa</td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor density</td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td></td>
<td></td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility(ies) mg/l</td>
<td></td>
<td></td>
<td>No data available</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>Toxicity</th>
<th>Values</th>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Oral LD50</td>
<td>&gt;5000</td>
<td>Rat, female</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dermal LD50</td>
<td>&gt;5000</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inhalation</td>
<td>LC50 mg/l/4h</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin</td>
<td>Non-irritating to the skin</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Serious</td>
<td>Not irritating to eyes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Respiratory</td>
<td>Not a skin sensitizer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic toxicity</td>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Carcinogenicity</td>
<td></td>
<td></td>
<td>H351 - Suspected of causing cancer</td>
</tr>
</tbody>
</table>
**Section 12: ECOLOGICAL INFORMATION**

### 12.1. Toxicity

#### Aquatic toxicity

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Values</th>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish 96-hour LC50 mg/l</td>
<td>&gt;100</td>
<td>Oncorhynchus mykiss</td>
<td>OECD 203</td>
<td></td>
</tr>
<tr>
<td>Crustacea 48-hour EC50 mg/l</td>
<td>&gt;100</td>
<td>Daphnia magna</td>
<td>OECD 202</td>
<td></td>
</tr>
<tr>
<td>Algae 72-hour EC50 mg/l</td>
<td>&gt;100</td>
<td>Selenastrum capricornutum</td>
<td>OECD 201</td>
<td></td>
</tr>
</tbody>
</table>

#### Terrestrial Toxicity

<table>
<thead>
<tr>
<th>Species</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mallard duck</td>
<td>FIFRA 71-1</td>
<td></td>
</tr>
<tr>
<td>Bees Oral LD50 μg/bee</td>
<td>EPPO 170 (1992)</td>
<td>Oral</td>
</tr>
</tbody>
</table>

#### Other plants EC50 mg/l

No data available

### 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Water DT50 days</th>
<th>Chemical Name</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pymetrozine</td>
<td>730 d</td>
<td>pH 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Soil DT50 days</th>
<th>Chemical Name</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pymetrozine</td>
<td>.</td>
<td></td>
<td></td>
<td>Not rapidly degradable</td>
</tr>
</tbody>
</table>

#### Biodegradation

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pymetrozine</td>
<td>Not readily biodegradable</td>
<td>OECD TG 301B</td>
<td>(2% in 29 days)</td>
</tr>
</tbody>
</table>

### 12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Partition Coefficient (n-octanol/water) Log Pow</th>
<th>Chemical Name</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pymetrozine</td>
<td>-0.19</td>
<td>OECD 107</td>
<td>pH7; 25 °C</td>
<td></td>
</tr>
</tbody>
</table>
Bioconcentration factor (BCF)
Chemical Name
Pymetrozine : No data available

12.4. Mobility in soil

Adsorption/Desorption

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Values</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pymetrozine</td>
<td>Kfoc=1049 mL/g</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 * Not regulated
14.2 Proper shipping name Not regulated ( )
14.3 Hazard Class Not regulated
14.4 Packing Group Not regulated
14.5 Marine pollutant Not regulated
14.6 Special precautions for user

RID/ADR
14.1 UN/ID No * Not regulated
14.2 Proper shipping name Not regulated ( )
14.3 Hazard Class Not regulated
14.4 Packing Group Not regulated
14.5 Environmental hazard Not regulated
14.6 Special precautions for user
14.7 Tunnel restriction code -

ICAO/IATA
14.1 UN/ID No * Not regulated
14.2 Proper shipping name Not regulated ( )
14.3 Hazard Class Not regulated
14.4 Packing Group Not regulated
14.5 Environmental hazard Not regulated
14.6 Special precautions for user
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not Applicable
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 H-Statements referred to under sections 2 and 3
H302 - Harmful if swallowed
H318 - Causes serious eye damage
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer if inhaled
H412 - Harmful to aquatic life with long lasting effects

List of Acronyms
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CAS Number - Chemical Abstracts Service number
EC Number - EINECS and ELINCS Number
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
OECD - Organization for Economic Co-operation and Development
PBT - Persistent, Bioaccumulative and Toxic substance
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT - Specific Target Organ Toxicity
vPvB - Very Persistent and Very Bioaccumulative

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

Revision Note Changes made to the last version are labeled with this sign ***.

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