1. IDENTIFICATION

Product identifier
Product Name: Sharda Chlorimuron + Metribuzin WDG

Other means of identification
Product Code: 83529-41
Synonyms: Metrixx Plus
Registration Number(s): 83529-41

Recommended use of the chemical and restrictions on use
Recommended Use: Herbicide
Uses advised against: No information available

Details of the supplier of the safety data sheet
Manufacturer Address: Sharda USA LLC
P.O. Box 640
Hockessin, DE 19707
Website: www.shardausa.com

Emergency telephone number
Company Phone Number: 610-350-6930 (US)
+91 22 5678 2800 (India)
Emergency Telephone: CHEMTREC: 800-424-9300
CHEMTREC: 703-527-3887
POISON CONTROL CENTER: 800-222-1222

2. HAZARDS IDENTIFICATION

Classification
OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| Serious eye damage/eye irritation | Category 2A |

Label elements
Warning

Hazard statements
Causes serious eye irritation
Appearance  dry, free flowing granules  
Physical state  Solid  
Odor  Slight Sulfurous  

Precautionary Statements - Prevention  
Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection  

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention  

Hazards not otherwise classified (HNOC)  
Not applicable  

Other Information  
Very toxic to aquatic life with long lasting effects. May be harmful if swallowed.  

Unknown acute toxicity  
25% of the mixture consists of ingredient(s) of unknown toxicity  

3. COMPOSITION/INFORMATION ON INGREDIENTS  

<table>
<thead>
<tr>
<th>Substance</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixture</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metribuzin</td>
<td>21087-64-9</td>
<td>64.3</td>
</tr>
<tr>
<td>Other inert ingredients *</td>
<td>Proprietary</td>
<td>10 - 30</td>
</tr>
<tr>
<td>Kaolinite *</td>
<td>1335-30-4</td>
<td>5 - 10</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret. If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.  

4. FIRST AID MEASURES  

Description of first aid measures  

General advice  
Call a poison control center or doctor for treatment advice. Have the product containers or label with you when calling a poison control center or doctor, or going for treatment.  

Eye contact  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison control center or doctor for treatment advice.  

Skin contact  
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician. Call a poison control center or doctor for treatment advice.  

Inhalation  
Move victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician or poison control center immediately. Call a poison control center or doctor for treatment advice.  

Ingestion  
Call a physician or poison control center immediately. Drink 1 or 2 glasses of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.
Self-protection of the first aider
Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed
Symptoms
May cause redness and tearing of the eyes.

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

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Dry chemical, CO2, water spray or regular foam. Move containers from fire area if you can do it without risk. Dike fire-control water for later disposal. Water spray, fog or regular foam.

Unsuitable extinguishing media
None.

Specific hazards arising from the chemical
Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Hazardous combustion products

Explosion data
Sensitivity to Mechanical Impact
None.
Sensitivity to Static Discharge
None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers / tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Avoid creating dust.

For emergency responders
Use personal protection recommended in Section 8. Ventilate the area.

Environmental precautions
Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment
Prevent dust cloud. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Avoid creating dust. Do not dry sweep dust. Wet dust with water before sweeping or use a vacuum to collect dust. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

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

**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 away from food, drink and animal feeding stuffs. Keep in properly labeled containers.

**Packaging materials**
Do not reuse container.

**Incompatible materials**
Strong oxidizing agents.

---

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metribuzin 21087-64-9</td>
<td>TWA: 5 mg/m³</td>
<td>-</td>
<td>TWA: 5 mg/m³</td>
</tr>
<tr>
<td>Kaolinite 1335-30-4</td>
<td>TWA: 2 mg/m³ particulate matter containing no asbestos and &lt;1% crystalline silica, respirable fraction (Kaolin)</td>
<td>TWA: 15 mg/m³ total dust: 5 mg/m³ respirable fraction (Kaolin)</td>
<td>TWA: 10 mg/m³ total dust TWA: 5 mg/m³ respirable dust (Kaolin)</td>
</tr>
</tbody>
</table>

**NIOSH IDLH** Immediately Dangerous to Life or Health

**Appropriate engineering controls**
Ensure adequate ventilation, especially in confined areas. And. Showers. Eyewash stations. Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**
Wear safety glasses with side shields (or goggles). Tight sealing safety goggles.

**Skin and body protection**
Wear suitable protective clothing. Wear protective butyl rubber gloves. Protective shoes or boots.

**Respiratory protection**
Ensure adequate ventilation, especially in confined areas. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations**
When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs. Wash contaminated clothing before reuse.

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>dry, free flowing granules</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Tan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Slight Sulfurous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>6.0</td>
<td></td>
<td>solution (1 %)</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Boiling point / boiling range: No information available
Flash point: Not applicable
Evaporation rate: No information available
Flammability (solid, gas): No information available
Flammability Limit in Air:
  Upper flammability limit: No information available
  Lower flammability limit: No information available
Vapor pressure: 0 mmHg @ 25 °C
Vapor density: No information available
Relative density: 0.66
Water solubility: dispersible
Solubility in other solvents: No information available
Partition coefficient: No information available
Autoignition temperature: No information available
Decomposition temperature: No information available
Kinematic viscosity: No information available
Dynamic viscosity: No information available
Explosive properties: Not an explosive
Oxidizing properties: Not applicable

Softening point: No information available
Molecular weight: No information available
VOC Content (%): No information available
Density: No information available
Bulk density: 0.63 g/ml (loose)

10. STABILITY AND REACTIVITY

Reactivity: No data available
Chemical stability: Stable under recommended storage conditions.
Possibility of Hazardous Reactions: None under normal processing.
Conditions to avoid: Elevated Temperature. Storage near to reactive materials.
Incompatible materials: Strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:
Product Information:
  Acute Oral LD50 (rat): >2000 mg/kg
  Acute Dermal LD50 (rabbit): > 2000 mg/kg
  Eye Irritation (rabbit): Causes eye irritation.
  Skin Irritation (rabbit): Mildly irritating.
  Inhalation LC50 (rat): >2 mg/L (4 HR)
  Skin Sensitization (guinea pig): Not a sensitizer.

Inhalation: Based on available data, the classification criteria are not met.
Eye contact: Irritating to eyes.
Skin contact
Based on available data, the classification criteria are not met.

Ingestion
Based on available data, the classification criteria are not met.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metribuzin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21087-64-9</td>
<td>= 2020 mg/kg (Male Rat) = 1100 mg/kg (Female Rat)</td>
<td>&gt; 5000 mg/kg (Rat) &gt; 20 g/kg (Rabbit)</td>
<td>&gt; 860 mg/m³ (Rat) 4 h</td>
</tr>
<tr>
<td>Chlorimuron ethyl ethyl-2-[[4-chloro-6-methoxypyrimidin-2-yl]-carbonyl]-amino]sulfonyl]benzoate</td>
<td>90982-32-4</td>
<td>= 4102 mg/kg (Rat)</td>
<td>&gt; 2 g/kg (Rabbit)</td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms
May cause redness and tearing of the eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization
Based on available data, the classification criteria are not met.

Germ cell mutagenicity
Based on available data, the classification criteria are not met.

Carcinogenicity
Based on available data, the classification criteria are not met.

Reproductive toxicity
Based on available data, the classification criteria are not met.

STOT - single exposure
Based on available data, the classification criteria are not met.

STOT - repeated exposure
Avoid repeated exposure. May cause adverse liver effects.

Chronic toxicity
Target Organ Effects
Central nervous system, liver, Thyroid.

Aspiration hazard
Based on available data, the classification criteria are not met.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document.

ATEmix (oral) >2000.00 mg/kg
ATEmix (dermal) 14,033.00 mg/kg mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity
Very toxic to aquatic life with long lasting effects

25 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metribuzin</td>
<td>Green algae 72-hr EC50 = 0.007 mg/L</td>
<td>Fish (rainbow trout) 96-hr LC50 = 74.6 mg/L</td>
<td>Daphnia magna 48-hr EC50 = 98.5 mg/L</td>
</tr>
<tr>
<td>21087-64-9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chlorimuron ethyl ethyl-2-[[4-chloro-6-methoxypyrimidin-2-yl]-carbonyl]-amino]sulfonyl]benzoate</td>
<td>90982-32-4</td>
<td>Green algae 96-hr EC50 = 0.756</td>
<td>Fish (rainbow trout) 96-hr LC50 &gt;12 mg/L</td>
</tr>
</tbody>
</table>

Persistence and degradability
Not readily biodegradable.

Bioaccumulation
Not likely to bioaccumulate.

Other adverse effects
This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)

13. DISPOSAL CONSIDERATIONS
Waste treatment methods
Disposal of wastes
Pesticide wastes may be acutely hazardous. Improper disposal is a violation of federal law. Disposal should be in accordance with applicable regional, national and local laws and regulations. Contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance on proper disposal of waste product.

Contaminated packaging
Disposal should be in accordance with applicable regional, national and local laws and regulations. Consult product label for additional information. Do not reuse container.

14. TRANSPORT INFORMATION

DOT
Not regulated

TDG
Not regulated

IATA
UN/ID no UN3077
Proper shipping name Environmentally hazardous substance, solid, n.o.s.
Hazard Class 9
Packing Group III
ERG Code 9L
Special Provisions A97, A158, A179, A197
Description UN3077, Environmentally hazardous substance, solid, n.o.s. (Chlorimuron, Metribuzin), 9, III

IMDG
UN/ID no UN3077
Proper shipping name Environmentally hazardous substance, solid, n.o.s.
Hazard Class 9
Packing Group III
EmS-No F-A, S-F
Special Provisions 274, 335, 966, 967
Description UN3077, Environmentally hazardous substance, solid, n.o.s. (Chlorimuron, Metribuzin), 9, III; Marine Pollutant

15. REGULATORY INFORMATION

International Inventories
TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Complies
IECSC Complies
KECL Complies
PICCS Complies
AICS Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances
US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metribuzin - 21087-64-9</td>
<td>1.0</td>
</tr>
<tr>
<td>Chlorimuron ethyl [ethyl-2-[[4-chloro-6-methoxypyrimidin-2-yl]carbonyl]-amino]sulfonyl]benzoate - 90982-32-4</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

- Acute health hazard: Yes
- Chronic Health Hazard: No
- Fire hazard: No
- Sudden release of pressure hazard: No
- Reactive Hazard: No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metribuzin - 21087-64-9</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Chlorimuron ethyl [ethyl-2-[[4-chloro-6-methoxypyrimidin-2-yl]carbonyl]-amino]sulfonyl]benzoate - 90982-32-4</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

U.S. EPA Label Information

EPA Pesticide Registration Number 83529-41

EPA Statement
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Difference between SDS and EPA Pesticide label
CAUTION: Harmful if swallowed. Causes moderate eye irritation. Avoid breathing dust, vapor or spray mist. Avoid contact with eyes, skin and clothing.

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and Chemical Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Physical hazards</th>
<th>Personal protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Issue Date 05-Jul-2016
Revision Date  
05-Jul-2016

Revision Note  
No information available

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

05Jul2016