MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF SUBSTANCE, PREPARATION AND COMPANY
Product name: LIETO
Use: Fungicide.
Formulation: Water Dispersible Granule
Supplier: Sipcam UK Limited, 4C Archway House, Melbourn Street, Royston SG8 7BX.
Emergency No: 01763 212100.

2. HAZARDS IDENTIFICATION
Classification of substance and mixture according to Regulation (EC) Number 1272/2008

WARNING

H302 | HARMFUL IF SWALLOWED
H317 | MAY CAUSE AN ALLERGIC SKIN REACTION
H361 | SUSPECTED OF DAMAGING THE UNBORN CHILD
H373 | MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE (BLOOD, THYMUS)
H410 | VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS

Additional information: For the wording of safety phrases refer to section 15.

3. COMPOSITION / INFORMATION ON INGREDIENTS
Hazardous ingredients according to Regulation EC 1272/2008

<table>
<thead>
<tr>
<th>CAS/EINECS</th>
<th>H Phrases</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>cymoxanil</td>
<td>57966-95-7/261-043-0</td>
<td>H302, H317, H410</td>
</tr>
<tr>
<td>zoxamide</td>
<td>156052-68-5</td>
<td>H317, H410</td>
</tr>
</tbody>
</table>

Additional information: For the wording of the listed hazard phrases refer to section 15.

4. FIRST AID MEASURES

General information:
Instantly remove any clothing soiled by the product.
Symptoms of poisoning may occur even after several hours, therefore medical observation for at least 48 hours after the incident.

After inhalation:
Supply fresh air or oxygen; call for doctor.
In case of unconsciousness bring patient into stable side position for transport.

After skin contact:
Immediately wash with water and soap and rinse thoroughly.

After eye contact:
Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing:
Do not induce vomiting, call for medical help

Information for doctor:
Treat symptomatically and supportively.

Indication of any immediate medical attention and special treatment needed:
No further relevant information available

5. FIRE FIGHTING MEASURES

Suitable extinguishing agents
CO2. extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire. Can be released in case of fire: Nitrogen oxides (NOx) / Carbon monoxide (CO) / Sulphur dioxide (SO2)

Protective equipment:
Do not inhale explosion gases or combustion gases.
Wear self-contained breathing apparatus / Put on breathing apparatus.

**Additional information**
Cool endangered containers with water spray jet.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:**
Avoid causing dust.
Wear protective clothing.

**Environmental precautions:**
Inform respective authorities in case product reaches water or sewage system. Do not allow to enter drainage system, surface or ground water.

**Methods and material for containment and cleaning up:**
Collect spillage
Collect mechanically
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.

### 7. HANDLING AND STORAGE

**Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.

**Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke. Protect from heat.

**Conditions for safe storage, including any incompatibilities**

**Storage**
Requirements to be met by storerooms and containers:
Store only in the original container. Store in cool location.

**Information about storage in one common storage facility:**
Store away from foodstuffs.
Do not store together with acids or alkalis (caustic solutions)

**Further information about storage conditions:**
Keep container tightly sealed. Store in cool, dry conditions in well sealed containers
Protect from heat and direct sunlight.

### 8. EXPOSURE CONTROL / PERSONAL PROTECTION

**Components with limit values that require monitoring at the workplace:**
This product does not contain any relevant quantities of materials with critical values that have to be monitored in the workplace

**Personal protective equipment**
The usual precautionary measures should be adhered to general rules for handling chemicals. Avoid contact with the eyes and skin.
Do not eat, drink or smoke while working.
Keep away from foodstuffs, beverages and food.
Take off immediately all contaminated clothing
Wash hands during breaks and at the end of the work.

**Breathing equipment:**
Breathing protection recommended
Recommended filter device for short term use: Filter P1

<table>
<thead>
<tr>
<th>Protection of hands:</th>
<th>Eye protection:</th>
<th>Body protection:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective gloves.</td>
<td>Safety glasses</td>
<td>Protective work clothing.</td>
</tr>
</tbody>
</table>

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Appearance:</th>
<th>Melting point or range:</th>
<th>Particle size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not determined</td>
<td>1-2 mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Form:</th>
<th>Boiling point or range:</th>
<th>Dust content:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Granulate</td>
<td>Not determined</td>
<td>Nearly dust free</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Colour:</th>
<th>Flash point:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beige</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
Odour: Characteristic
Self-inflammability: 425°C.
Solubility / Miscibility (water): Dispersible
pH-value at 20°C:
6.8 (1% solution)
Danger of explosion: Product is not explosive.
Density: 0.65 g/l

10. REACTIVITY AND STABILITY
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Possibility of hazardous reactions: Hazardous polymerisation has not reported under normal temperatures and pressures.
Conditions to avoid: No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: Thermal decomposition products may include toxic and corrosive fumes of chlorides and toxic oxides of nitrogen

11. TOXICOLOGICAL INFORMATION
LD/LC50 values that are relevant for classification:
Oral LD50: 1469 mg/kg (rat)  Dermal LD50: >5000 mg/kg (rat)  Inhalation LC50/4 h: >4.4 mg/l (rat)
Skin Irritation: No irritant effect.
Eye Irritation: No irritant effect.
Sensitization: Sensitization possible by skin contact.

12. ECOLOGICAL INFORMATION
Aquatic toxicity (formulated product):
EC 50: 0.055 (72 h) mg/l (algae)  LC 50: 44.6 (48 h) mg/l (daphnia magna)
LC 50: 0.83 (96h) mg/l (rainbow trout (oncorhynchus mykiss))
Note: Very Toxic for aquatic organisms
Persistence and degradability: No further relevant information available.
Bioaccumulative potential: Cymoxanil and zoxamide have low bioaccumulation potential
Mobility in soil: No further relevant information available.

13. DISPOSAL
Waste or used preparation: This material and its container must be disposed of in a safe way. Collect spillage.
Disposal of packaging: Dispose of contents/container to a licensed waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste

14. TRANSPORT
UN-Number (ADR, IMDG, IATA) 3077
Proper shipping name(ADR, IMDG, IATA)
3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (cymoxanil (ISO))
3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zoxamide (ISO))
Hazard class (ADRIDMG, IATA): Class 9 Miscellaneous dangerous substances and articles. Label 9+P. Packing group III
Marine pollutant: Yes
Special marking (ADR): Symbol (fish and tree)
Special precautions (user) Warning: Miscellaneous dangerous substances and articles.
Kemler Number: 90
EMS Number: F-A-S-F
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.
Transport/Additional information: (ADR) Limited quantities (LQ) LQ27 Transport category 3 Tunnel restriction code E

15. REGULATORY INFORMATION
Hazard-determining components of labelling: Cymoxanil, Zoxamide.
Precautionary (P) statements:
P280 Wear gloves, protective clothing and eye/face protection
Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.
Avoid release to the environment.
If exposed or concerned. Get medical advice/attention.
Collect spillage.
Dispose of contents/container to a licensed waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste.
Do not contaminate water with the product or its container.

16. OTHER INFORMATION

H Phrases referenced in section 3:

- H302 Harmful if swallowed
- H317 May cause an allergic skin reaction
- H373 May cause damage to organs through prolonged or repeated exposure (blood, thymus)
- H361 Suspected of damaging the unborn child
- H410 Very toxic to aquatic life with long lasting effects

Prepared by Sipcam UK Ltd to the best of our current knowledge and information:
No responsibility is accepted that the information will be sufficient or correct in all cases.
February 2015