1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier
Product Name: Onslaught® Microencapsulated Insecticide
EPA Registration Number: 1021-1815

Other means of identification
Part Code: 28371

Recommended use of the chemical and restrictions on use:
Recommended Use: Insecticide.

Details of the supplier of the safety data sheet
Manufacturer Address: McLaughlin Gormley King Company
7325 Aspen Lane North
Minneapolis, MN 55428
USA
Telephone Number: (800) 645-6466, or (763) 544-0341
FAX #: (763) 544-6437
e-Mail Address: mgk-sds@mgk.com

Emergency telephone numbers:
24 Hour TRANSPORTATION Emergency: CHEMTREC®: (800) 424-9300
International: (703) 527-3887

24 Hour MEDICAL Emergency: SafetyCall®: (888) 740-8712, or (952) 852-9509

Comments: MGK® Hours of operation are 8:00 a.m. to 4:30 p.m. CST, 14:00 to 22:30 GMT. For MEDICAL EMERGENCIES or PESTICIDE INCIDENTS, call 24 hours a day to (888) 740-8712, or (952) 852-9509.

2. HAZARDS IDENTIFICATION

Classification:

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

Acute toxicity - Inhalation (Dusts/Mists) Category 4
Serious eye damage/eye irritation Category 2B

Label elements

WARNING

Hazard statements
• H332 - Harmful if inhaled
• H320 - Causes eye irritation
Precautionary Statements - Prevention:
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear eye protection/face protection

Precautionary Statements - Response:
P321 - Specific treatment (see Section 4/ First Aid).
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P312 - Call a POISON CENTER or doctor/physician if you feel unwell

Precautionary Statements - Storage:
P404 - Store in a closed container

Precautionary Statements - Disposal:
P501 - Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC):
Do not use this product in or on electrical equipment due to the possibility of shock hazard.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Esfenvalerate</td>
<td>66230-04-4</td>
<td>6.4</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated light</td>
<td>64742-47-8</td>
<td>&lt;10 *</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret

Comments: Ingredients not identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Aspiration pneumonia hazard: • Not applicable

Description of first aid measures:

Eye contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call
a poison control center or doctor for treatment advice.

Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Ingestion: If swallowed, IMMEDIATELY call a poison control center or doctor for treatment advice. DO NOT give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or a doctor. Never give anything by mouth to an unconscious person.

Inhalation: Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Self-protection of the First Responder: Use personal protective equipment as required.

Note to physicians: Contains petroleum distillates – vomiting may cause aspiration pneumonia.

For skin effects, a highly efficient therapeutic agent for Pyrethrin/Pyrethroid exposure is topical application of tocopherol acetate (Vitamin E). May cause sensitization of susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

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

Unsuitable extinguishing media:
Caution: Use of water spray when fighting fire may be inefficient.

Hazardous combustion products: Hydrogen cyanide, Carbon monoxide, Carbon dioxide (CO2).

Specific hazards arising from the chemical
In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

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.
Methods and material for containment and cleaning up

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

Methods for cleaning up: Cover liquid spill with sand, earth or other non-combustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Dam up.

7. HANDLING AND STORAGE

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. Use with local exhaust ventilation.

Conditions for safe storage, including any incompatibilities


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>
<th>Supplier OEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, hydrotreated light 64742-47-8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>TWA: 100 ppm TWA: 525 mg/m³</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering Controls: Safety showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles).
Skin and body protection: Protective gloves are recommended, but are not required.
Respiratory protection: 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. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES
Information on basic physical and chemical properties:

Physical state: Liquid
Appearance: cream, light amber / light yellow
Odor: Odorless
Odor threshold: No information available
Color (Gardner Scale): No information available

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Comment</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>5.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No information available</td>
<td></td>
<td>@ 10% in H₂O</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No information available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 93.3 °C / &gt; 200.0 °F</td>
<td></td>
<td>Tag Closed Cup</td>
</tr>
</tbody>
</table>

Evaporation rate: No information available
Flammability (solid, gas): No information available
Upper flammability limit (UEL): No information available
Lower flammability limit (LEL): No information available
Vapor pressure: No information available
Vapor density: No information available
Specific Gravity: 1.02 @ 20.0 °C
Water solubility: No information available
Partition coefficient; n-Octanol/ Water: No information available

Autoignition temperature: No information available
Decomposition temperature: No information available
Kinematic viscosity: No information available
Dynamic viscosity: 1,025 cPs @ 18.5 °C
Refractive Index: No information available

Other Information:
VOC Content (%): 1.21

Miscibility/ Solubility:
Water: Immiscible
Alcohol: Immiscible
Aromatic solvents: Immiscible
Petroleum distillates: Immiscible

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization: Hazardous polymerization does not occur.

Conditions to avoid
Extremes of temperature and direct sunlight.
Incompatible materials:
Incompatible with strong acids and bases. Incompatible with oxidizing agents.

Hazardous Decomposition Products
Hydrogen cyanide, Carbon monoxide, Carbon dioxide (CO2).

**11. TOXICOLOGICAL INFORMATION**

**Numerical measures of toxicity - Product Information**

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Oral LD$_{50}$</td>
<td>&gt;2,000 mg/kg (rat)</td>
</tr>
<tr>
<td>Dermal LD$_{50}$</td>
<td>&gt;2,000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Inhalation LC$_{50}$</td>
<td>&gt;2.06 mg/L, (rat; 4 hours)</td>
</tr>
<tr>
<td>Eye contact:</td>
<td>Irritation cleared within 7 days. (rabbit).</td>
</tr>
<tr>
<td>Skin Contact:</td>
<td>Slight irritation at 72 hours. (rabbit).</td>
</tr>
<tr>
<td>Skin Irritation Index</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Sensitization: Negative. (guinea pig).

Comment: Some of the above toxicity data was bridged from the insecticide concentrate, that is used in manufacturing this end-use product.

Carcinogenicity
This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP

Reproductive toxicity: No information available.
Developmental Toxicity:
Teratogenicity: No information available.
STOT - single exposure: No information available.
STOT - repeated exposure: No information available.
Chronic toxicity: Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.

**12. ECOLOGICAL INFORMATION**

This product contains a chemical which is listed as a severe marine pollutant according to DOT.

**Ecotoxicity:**

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Other adverse effects: No information available

Environmental hazards (EPA):
Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

**13. DISPOSAL CONSIDERATIONS**
14. TRANSPORT INFORMATION

DOT (Department of Transportation)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Liquid
Hazard Class: This material is not hazardous.

Air (IATA/ICAO)

Proper Shipping Name: Insecticides, Insect or Animal Repellent, Liquid
Hazard Class: This material is not hazardous.

Other IATA / ICAO Shipping Information:
Not considered hazardous by IATA/ICAO regulations for transportation via air.

Vessel (IMO/IMDG)

UN/ID Number: UN3082
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s
Hazard Class: 9
Packing Group: III
Marine Pollutant: Esfenvalerate

15. REGULATORY INFORMATION

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

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 intentionally added Proposition 65 chemicals

U.S. EPA Label Information:

EPA Registration Number: 1021-1815

Difference between SDS and EPA (FIFRA) Pesticide label:
This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use. The hazard information required on the pesticide label is reproduced below:

Signal word: CAUTION

Precautionary Statements:
• Harmful if swallowed
• Harmful if absorbed through the skin.
• Causes moderate eye irritation

International Inventories:

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Complies</th>
<th>Does not comply</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
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<td></td>
</tr>
<tr>
<td>DSL/NDSL</td>
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<td></td>
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<tr>
<td>EINECS/ELINCS</td>
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<tr>
<td>ENCS</td>
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<tr>
<td>IECSC</td>
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<td>KECL</td>
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<tr>
<td>PICCS</td>
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<tr>
<td>AICS</td>
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</table>

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

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>
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<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Physical hazards</th>
<th>Personal protection</th>
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Chronic Hazard Star Legend  * = Chronic Health Hazard

<table>
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<tr>
<th>Issue Date:</th>
<th>Revision Date:</th>
<th>Revision Note:</th>
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<td>- 16</td>
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</tbody>
</table>

SDS Prepared By: Troy Azzivitto, MGK® Chemistry Department.
E-Mail Address: mgk-sds@mgk.com

Disclaimer:

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, MGK® and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither MGK® nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users’ own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact MGK® to confirm that you have the most current product label and SDS.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, “Hazcom”). The product label provides information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label. It is a violation of federal law to use an EPA-registered pesticide product in any manner inconsistent with its labeling.

End of Safety Data Sheet