



SAFETY DATA SHEET

Issue Date: 04-Jun-2015

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Version: 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name: Crossfire® Aerosol
EPA Registration Number: 1021-2788

Other means of identification

Other Information: Crossfire is a registered trademark of Sumitomo Chemical Co., LTD.

Recommended use of the chemical and restrictions on use:

Recommended Use: A Liquefied Aerosol Insecticide Spray.

Details of the supplier of the safety data sheet

Manufacturer Address: McLaughlin Gormley King Company
8810 10th Avenue North
Minneapolis, MN 55427
Telephone Number: (800) 645-6466, or (763) 544-0341
e-Mail Address: mgk-sds@mgk.com

FAX #:
(763) 544-6437

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 am to 4:30 pm 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

Label elements

Emergency Overview

WARNING

Hazard statements

- H332 - Harmful if inhaled
- H401 - Toxic to aquatic life
- H411 - Toxic to aquatic life with long lasting effects



Appearance: Milky white (Aerosol Non-volatiles)

Physical state: Aerosol - Compressed liquefied gas.

Odor Slight Solvent

Precautionary Statements - Prevention:

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P271 - Use only outdoors or in a well-ventilated area

Precautionary Statements - Response:

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:

P411 - Store at temperatures not exceeding 50°C/ 122°F.

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

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

Chemical Name	CAS No	Weight-%
Clothianidin	210880-92-5	0.40
Metofluthrin	240494-70-6	0.010
Piperonyl Butoxide (PBO)	51-03-6	1.00
Propane	74-98-6	1<--->10 *
Isobutane	75-28-5	1<--->10 *

*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: • No information available

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. Have person sip a glass of water if able to swallow. 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:	Remove all sources of ignition. Use personal protective equipment as required.
Note to physicians:	For skin effects, a highly efficient therapeutic agent for Pyrethrin/ Pyrethroid exposure is topical application of tocopherol acetate (Vitamin E).

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: Carbon monoxide, Carbon dioxide (CO₂).

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact: None.

Sensitivity to Static Discharge: None.

Protective equipment and precautions for firefighters:

In the event of fire and/or explosion do not breathe fumes.

<u>NFPA</u>	Health hazards 2	Flammability 4	Instability 0	Physical and Chemical Properties *
<u>HMIS</u>	Health hazards 1 *	Flammability 4	Physical hazards 0	Personal protection X
Chronic Hazard Star Legend * = Chronic Health Hazard				

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions:	Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Keep people away from and upwind of spill/leak. Use personal protective equipment as required.
Environmental precautions:	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up: Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Soak up with inert absorbent material.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with eyes. Avoid breathing vapors or mists. Contents under pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can. For more information, see product label.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. For more information, see product label.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Control parameters

Exposure Guidelines: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	Supplier OEL
Propane 74-98-6	TWA: 1000 ppm	TWA: 1000 ppm TWA: 1800 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1800 mg/m ³	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m ³	-
Isobutane 75-28-5	STEL: 1000 ppm	-	TWA: 800 ppm TWA: 1900 mg/m ³	-

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information: Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls: Safety showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection: Tight sealing safety goggles. Face protection shield.

Skin and body protection: Wear protective gloves and protective clothing.

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. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state: Aerosol - Compressed liquefied gas.
Appearance: Milky white (Aerosol Non-volatiles)
Odor: Slight Solvent
Odor threshold: No information available
Color (Gardner Scale): No information available

<u>Property:</u>	<u>Values:</u>	<u>Comment: • Method</u>
pH:	5.30	@ 23.8 °C. Test was performed on aerosol Non-Volatile's.

Melting point / freezing point:	No information available	
Boiling point / boiling range:	No information available	
Flash point:	> 93.3 °C / > 200.0 °F	(estimate; based on components);

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: 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: No information available 161 @ 20°C, 122 @ 40°C, cPs. Test was performed on aerosol Non-Volatile's.

Refractive Index: No information available

Other Information:

Density: 1.006 g/cm³ @ 21.6 °C (Aerosol Non-volatiles)
VOC Content (%): 10.27

Miscibility/ Solubility:
Water: No information available

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

Heat, flames and sparks.

Incompatible materials:

Incompatible with strong acids and bases. Incompatible with oxidizing agents.

Hazardous Decomposition Products

Carbon monoxide, Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Numerical measures of toxicity - Product Information

Oral LD ₅₀	>5,000 mg/kg (rat)
Dermal LD ₅₀	>5,000 mg/kg (rabbit)
Inhalation LC ₅₀	>2.15 mg/L (rat; 4 hours)
Eye contact:	Non-irritating to eyes. Irritation clearing in 24 hours. (rabbit).
Skin Contact:	Non-irritating to the skin. No irritation observed. (rabbit).
Sensitization:	Negative. (guinea pig).

Comment: Toxicology data was bridged from a similar formula.

Piperonyl Butoxide: Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures to PBO. The significance of these observations is questionable and under review. The doses at which tumors were observed for PBO greatly exceeded potential human exposure from labeled uses. Doses at which these effects were observed greatly exceeded anticipated human dietary intake. At anticipated dietary exposure levels, it is highly unlikely that this product will result in carcinogenic effects.

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	No information available.
Teratogenicity:	No information available.
STOT - single exposure:	No information available.
STOT - repeated exposure:	No information available.
Chronic toxicity:	Avoid repeated exposure.
Target Organ Effects:	Central nervous system.

12. ECOLOGICAL INFORMATION

Ecotoxicity:**Persistence and degradability**

No information available.

Bioaccumulation

No information available.

Chemical Name	Partition coefficient; n-Octanol/ Water:
Propane 74-98-6	2.3
Isobutane 75-28-5	2.88

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**Waste treatment methods**

Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations. For more information, see product label.

Contaminated packaging: For more information, see product label.

14. TRANSPORT INFORMATION**DOT (Department of Transportation)**

UN/ID Number: UN1950
Proper Shipping Name: Aerosols, non-flammable
Hazard Class: 2.2

Air (IATA/ ICAO)

UN/ID Number: UN1950
Proper Shipping Name: Aerosols, non-flammable
Hazard Class: 2.2

Vessel (IMO/ IMDG) Not available

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 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

Chemical Name	SARA 313 - Threshold Values %
Piperonyl Butoxide (PBO) - 51-03-6	1.0

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	Yes
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. EPA Label Information:

EPA Registration Number: 1021-2788

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:

International:

TSCA	Does not comply
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

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 OR LAST REVISION.

Issue Date:
24-Aug-2015

Revision Date:
04-Jun-2015

Revision Note:
New SDS, GHS - Classification.

SDS Prepared By:
e-Mail Address:

Troy Azzivitto, MGK® Chemistry Department.
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Disclaimer:

The data contained herein are based on information currently available to McLaughlin Gormley King Company and, to the best of our knowledge, are accurate and based on sound expert opinion. Our statements herein, however, are not to be taken as a warranty or representation for which McLaughlin Gormley King Company assumes legal responsibility.

End of Safety Data Sheet.