



SAFETY DATA SHEET

Clarke Flit 13.3

Effective Date: 1 June 2015

v.01

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SECTION 1. Identification of the Substance/Mixture and of the Company

1.1 Product Identifier

Formulation Identifier: Clarke Flit 13.3

EPA Registration Number: 4-350-8329

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant identified uses: Insecticide

Uses advised against: See product label for use restrictions

1.3 Details of the Supplier of the Safety Data Sheet

Clarke Mosquito Control Products, Inc.
675 Sidwell Court
St. Charles, IL 60174 U.S.A.
+1 (630) 894-2000
Email: Clarke@clarke.com

1.4 Emergency Telephone Number

24-Hour Medical Emergency: POISON CONTROL Toll-free (800) 214 – 7753

24-Hour Transportation Emergency: INFOTRAC (800) 535-5053

SECTION 2. Hazards identification

United States (US)

According to OSHA 29 CFR 1910.1200 HCS (2012)

2.1 Classification of the Substance or Mixture

3 Flammable liquid Category 3
Mutagenicity: Category 1B
Carcinogenicity: 1B

Pictogram:



Signal Word: DANGER

Hazard Statements: Flammable liquid and vapor
May cause genetic defects
May cause cancer

Precautionary Statements:

PREVENTION: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilation/lighting equipment



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	Use only non-sparking tools Take precautionary measures against static discharge Wear protective gloves/protecting clothing/eye protection
RESPONSE:	If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed or concerned: Get medical advice/attention In case of fire: Use Water fog, foam for extinction
STORAGE	Store locked up in a well ventilated place. Keep cool.
DISPOSAL	Dispose of contents/container to in accordance with local/national regulations.

3.1 Other Hazards Not Classifiable Under OSHA 2012 HCS

No additional information available

SECTION 3. Composition/Information on Ingredients

Mixture

3.1 Components

Substance Name	CAS No.	Concentration wt%	Classification
Solvent naphtha (petroleum) light aromatic	64742-95-6	79.2	Flammable liquid 2 Mutagenicity 1B Carcinogenicity 1B Aspiration Tox. 1
Permethrin	52645-53-1	13.3	Not classified
Naphtha heavy aromatic	64742-94-5	6	Skin Irritant 2 Aspiration Tox. 1

SECTION 4. First Aid Measures

4.1 Description of First Aid Measures

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice. (show the label where possible)

First-aid after inhalation: Assure fresh air breathing. Allow victim to rest.

First-aid after skin contact: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.

First-aid after eye contact: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid after ingestion: Rinse mouth. Do Not induce vomiting. Obtain emergency medical attention.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed.

Symptoms/Injuries: May cause genetic defects. May cause cancer

4.3 Indication of Immediate Medical Attention and Special Treatment

No additional information available

SECTION 5. Fire-Fighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media: Foam, Dry Powder, carbon dioxide, Water spray, Sand.

Unsuitable Extinguishing Media: Do not use heavy water stream.

5.2 Special Hazards Arising From the Substance or Mixture



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Fire Hazards: Highly flammable liquid and vapor
Explosion hazard: May form flammable/explosive vapor-air mixture.

5.3 Special Protective Equipment and Precautions for Fire-Fighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid fire-fighting water to enter environment.

Special Procedures: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6. Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

General Precautions: Remove ignition sources. Use special care to avoid static electrical charges.

6.1.1 For non-emergency personnel

Emergency procedures: Evacuate unnecessary personnel

6.1.2. For emergency Responders

Protective Equipment: Equip cleanup crew with proper protection

Emergency procedures: Ventilate area

6.2 Environmental Precautions:

Prevent product from entering into drains and waterways. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities.

6.3 Methods and Material for Containment and Cleaning Up

Clean Up Methods: Soak up spills with inert solids such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4 Reference to other sections See Heading 8. Exposure controls and personal protection.

SECTION 7. Handling and Storage

7.1 Precautions for Safe Handling

Additional hazards when processed: Keep away from ignition sources

Hygiene Measures: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapors. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Technical measures: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.

Storage conditions: Store in original container. Keep in fireproof place. Keep container tightly closed.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Sources of ignition. Heat sources.

SECTION 8. Exposure Controls / Personal Protection

8.1 Control Parameters

No additional information available



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8.2 Exposure controls

Personal protective equipment:	Avoid all unnecessary exposure
Hand protection:	Wear protective gloves.
Eye Protection:	Chemical goggles or safety glasses
Respiratory Protection:	Wear approved mask.
Other information:	When using, do not eat, drink, or smoke.

SECTION 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Appearance:	Liquid
Color	Yellow to brown
Odor:	Mild solvent
Odor Threshold:	Not Available
pH:	5.0 – 6.0
Melting Point:	Not determined
Freezing Point:	Not determined
Initial Boiling Point:	198-200 °F
Flash Point:	48 °C (118 °F)
Evaporation Rate:	Not determined
Flammability:	Not determined
Explosion limits [U/L]:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	>1 (Air=1)
Relative density	0.91
Specific Gravity	No information
Solubility:	No data available
Log Pow	No data available
Log Kow	No data available
Partition Coefficient:	Not determined
Auto-Ignition Temperature:	Not applicable
Viscosity, kinematic:	Not determined
Viscosity, dynamic:	Not determined
Decomposition Temperature:	Not available
Explosive Properties:	No data available
Oxidizing Properties:	Not available
Explosive limits	No data available

SECTION 10. Stability and Reactivity

10.1 Reactivity

No additional information available

10.2 Chemical Stability

Stable under normal conditions



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10.3 Possibility of Hazardous Reactions

Not established

10.4 Conditions to avoid

Extreme high or low temperatures. Open flames.

10.5 Incompatible materials

Avoid contact with strong acids, and strong bases

10.6 Hazardous decomposition products

Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11. Toxicological information

11.1 Information on Toxicological Effects

Acute Toxicity: Not classified

Solvent naphtha (petroleum), light aromatic (64742-95-6)	
LD50 oral rat	8400 mg/kg
Naphtha, heavy aromatic (64742-94-5)	
LD50 oral rat	> 5000 mg/kg (rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 5 mg/l/4h (Rat)
Permethrin (52645-53-1)	
LD50 oral rat	> 383 mg/kg (Rat)
LD50 dermal rat	4000 mg/kg (Rat)
LC50 inhalation ratmg/l	> 5 mg/l (Rat)
Skin Corrosion/Irritation:	Not classified, pH: 5-6
Serious Eye Damage/Irritation:	Not classified, pH: 5-6
Respiratory or skin Sensitization:	Not classified
Germ Cell Mutagenicity	May cause genetic defects
Carcinogenicity	May cause cancer (Permethrin 52645-53-1) IARC group 3- Not classifiable
Reproductive Effects:	Not classified
STOT – Single exposure	Not classified
STOT – Repeated exposure	Not classified

SECTION 12. Ecological Information

12.1 Toxicity

Naphtha, heavy aromatic (64742-94-5)	
LC50 fish 1	2.1-4.2 mg/l (96 hr; <i>Lepomis macrochirus</i> ; Fresh water)
EC50 Daphnia 1	0.95 mg/l (48 h; <i>Daphnia magna</i>)
LC50 fish 2	2.34 mg/l (96h; <i>Oncorhynchus mykiss</i>)
Threshold limit algae 1	1 mg/l (72h; <i>Skeletonema costatum</i> ; Growth)
Permethrin (52645-53-1)	
LC50 fish 1	0.0025 mg/l 96h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>)



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EC50 Daphnia 1	0.00043 mg/l (48h; <i>Daphnia magna</i> ; Enzyme effect)
LC50 fish 2	0.016 mg/l (96h; <i>Pimephales promelas</i>)
EC50 Daphnia 2	0.290 mg/l (24; <i>Lymnaea</i> sp.)

12.2 Persistence and Degradability

Flit 13.3	Not established
Solvent naphtha (petroleum), light aromatic (64742-95-6)	Not established
Naphtha, heavy aromatic (64742-94-5)	Not readily biodegradable in water

12.3 Bioaccumulative potential

Flit 13.3 Not established

Solvent naphtha (petroleum), light aromatic (64742-95-6)	
Log Pow	2.1 - 6
Bioaccumulative potential	Not established
Naphtha, heavy aromatic (64742-94-5)	
Log Pow	2.9-6.1
Bioaccumulative potential	Bioaccumable
Permethrin (52615-53-1)	
BCF fish 1	560 <i>Salmo gairdneri</i> (Oncorhynchus mykiss)
BCF fish 2	480 (<i>Cyprinodon variegatus</i>)
BCF other aquatic organisms 1	0.1 mg/l (>24 h; Algae)
BCF aquatic organisms 2	1900 (<i>Ostredae</i>)
Log Pow	3.48 – 6.5
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5)

12.4 Mobility in soil

Permethrin (52645-53-1)	
Ecology - soil	No information

SECTION 13. Disposal Considerations

13.1 Waste Treatment and Disposal methods

Waste disposal recommendations; Dispose in a safe manner in accordance with local regulations
 Additional information: Handle empty containers with care because residual vapors are Flammable.
 Ecology – waste materials: Avoid release to the environment.

SECTION 14. Transport Information



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14.1 DOT (US) 49 CFR

UN Number: UN 1993
Hazard Class: 3
Packing group: III
Proper shipping name: Flammable Liquids, N.O.S. (Petroleum Distillates)

14.2 IMDG (Vessel)

UN Number: UN 1993
Hazard Class: 3
Packing Group: III
Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates)
Marine Pollutant: Yes

14.3 ICAO/IATA (Air transport)

UN Number: UN 1993
Hazard Class: 3
Packing Group: III
Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates)
Environmental Hazard: Yes

SECTION 15. Regulatory Information

FIFRA Information: This chemical is a pesticide product regulated 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 for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal word: WARNING

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear goggles or safety glasses. Avoid contact with skin. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Other US Federal Regulations

SARA Title III – Section 302: None

SARA Title III Section 313 Toxic Chemical Release Reporting: Permethrin, 52645-53-1

CERCLA RQ: None

OSHA HAZARD COMMUNICATION STANDARD: This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. California Proposition 65: Not listed

STATE RIGHT-TO-KNOW : National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

SECTION 16. Other Information

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

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