SAFETY DATA SHEET JMS STYLET-OIL

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: JMS STYLET-OIL
PRODUCT USE: WHITE MINERAL OIL USED AS INSECTICIDE; FUNGICIDE; MITICIDE; APHID-BORNE VIRUSES
MANUFACTURER: JMS FLOWER FARMS, INC.
ADDRESS: 4423 5TH PL SW VERO BEACH, FL 32968
Phone: 772-562-8770

EMERGENCY TELEPHONE NUMBERS: 800-424-9300

SECTION 2: HAZARD IDENTIFICATION

Signal Word:	Danger
Skin Irritation:	Causes mild skin irritation
Eye Irritation:	Causes eye irritation
Acute Toxicity Oral:	LD50 > 5,000 mg/kg
Acute Toxicity Dermal:	LD50 > 2,000 mg/kg

Hazard Categories: Oral/Dermal/Inhalation Toxicity-5/5/5; Eye/Skin Irritation-2B/3; Aspiration Hazard-1

Hazard Statement:
May be harmful if swallowed
May be harmful in contact with skin
Causes eye irritation
Causes mile skin irritation
May be harmful if inhaled
May be fatal if swallowed and enters airways

Aggravated Medical Condition: None known

JMS Stylet-Oil is registered with the EPA FIFRA as a pesticide. Classifications on this SDS are not the same as the EPA label (#65564-1). Some Sections of the SDS are superseded by Federal law for a registered pesticide. Section 15 REGULATORY INFORMATION provides more detailed information.

SECTION 3: INFORMATION ON INGREDIENTS:

COMPONENT	CAS NUMBERS	% by Weight
WHITE MINERAL OIL	64742-54-7; 64742-55-8; 8042-47-5	98.00
Inert Ingredients:	Nonhazardous	2.9

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SECTION 4: FIRST AID MEASURES

Eye: Check for and remove contact lenses. DO NOT use an eye ointment. Flush thoroughly with water, keeping eyelids open for at least 15 minutes. If irritation occurs, seek medical assistance.

Inhalation: Remove from further exposure. Use adequate respiratory protection if assisting someone affected. If respiratory irritation, nausea, dizziness or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a medical device or use mouth-to-mouth resuscitation.

Ingestion: DO NOT induce vomiting because of danger of aspirating liquid into lungs unless directed by a physician or poison control center. Low toxicity on ingestion, has laxative effect and rapidly eliminated. Physical assessment advised.

Skin: Remove contaminated clothing. Remove and launder contaminated clothing before reuse. Wash contaminated skin with non-abrasive soap and water for at least 15 minutes. Seek medical attention if redness or irritation occurs.

SECTION 5: FIRE FIGHTING PROCEDURES

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames. Do not use streams of water.

FIRE FIGHTING INSTRUCTIONS: Evacuate area. Prevent run-off from fire, control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

HAZARDOUS COMBUSTION PRODUCTS: Smoke, fumes, Carbon Monoxide, and irritating vapors.

FLAMMABILITY PROPERTIES: FLASH POINT ASTM D92 (open cup typical)
□□ F = COC > 360 □□ F

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SECTION 6: SPILL OR LEAK HANDLING PROCEDURES

SPILL MANAGEMENT: Land Spill: Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

ENVIRONMENTAL PRECAUTIONS: Large spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

Contact local authorities regarding spills/leaks.

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SECTION 7: HANDLING AND STORAGE

HANDLING: Smoking, eating and drinking should be prohibited in the application area.
In case of insufficient ventilation, wear suitable respiratory equipment.
Avoid contact with eyes, skin and clothing.
Do not ingest.
Keep away from sources of heat and ignition.
Keep container closed when not in use.

STORAGE: Store in original container. Opened containers should be resealed and kept upright to prevent leakage.
Store in dry, cool, well-ventilated area.
Store is labelled containers.
Do not store in heat or direct sunlight.
Protect from freezing.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters:
Contains no substances with occupational exposure limit values. Local exhaust should be sufficient.

ENGINEERING MEASURES: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminates.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory Protection: Use respiratory protection when adequate local exhaust ventilation is not provided, or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Filter type:	Organic vapor filter
Hand protection Material:	Neoprene, nitrile, polyvinyl alcohol (PVA), Viton(R)
Remarks:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Eye Protection:	If contact is likely, safety glasses with side shields are recommended
Skin and body protection:	Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include: No skin protection is ordinarily required under normal conditions of use. In accordance with good hygiene practices, precautions should be taken to avoid skin contact
Hygiene measures:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.
ENVIRONMENTAL CONTROLS:	SEE SECTIONS 6, 7, 12, 13

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear and bright neutral
Boiling Point	> 200 ° C
Physical State	Liquid
Odor	None
Vapor Density (Air = 1)	N/A
Pour Point ° C (F)	-27 (-5)
Freezing Point	ND
Density at 20 ° C	0.85-0.862
Flash Point physical ° C (F)	> 160 (345) See Section 5
Flammable Limits	LEL: ND UEL: ND
Viscosity cSt at 40 ° C	13
Autoignition Temperature	ND
Vapor Pressure	< 0.013 kPa (0.1 mm Hg) at 20 ° C
Evaporation Rate (N-Butyl Acetate = 1)	ND
Solubility in Water	Miscible
Oxidizing Properties	See Sections 3, 15, 16

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable under normal conditions
CONDITIONS TO AVOID:	Excessive heat. High energy sources of ignition
MATERIALS TO AVOID:	Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS:	Does not decompose at ambient temperatures
HAZARDOUS POLYMERIZATION:	Will not occur

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SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Potential acute health effects:

Inhalation: No known significant effects or critical hazards
Ingestion: No known significant effects or critical hazards
Skin contact: No known significant effects or critical hazards
Eye contact: No known significant effects or critical hazards

INHALATION	CONCLUSION/REMARKS
Toxicity: LC50 > 5,000 mg/m3	Minimally toxic. Based on test data for other structurally similar materials. Negligible hazard at ambient/normal handling temperatures. Based on assessment of the components
INGESTION Toxicity: LD50 > 5,000 mg/kg	Minimally toxic. Based on test data for structurally similar data
SKIN: LD50 > 5,000 mg/kg	Minimally toxic. Based on test data for other structurally similar materials. Negligible irritation at ambient temperatures. Based on test data for structurally similar materials
EYE: Irritation	May cause mild, short lasting discomfort to eyes. Based on test data for structurally similar materials

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SECTION 11: TOXICOLOGICAL INFORMATION

CHRONIC/OTHER EFFECTS

For the product itself:

Repeated and/or prolonged exposure may cause irritation to the skin, eyes or respiratory tract.

Base oil severely refined. Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Dermal and inhalation studies showed minimal effects. Not sensitizing in test animals.

CARCINOGENIC EFFECTS:

Contains no carcinogens. Similar compounds essentially non-toxic. No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product at levels greater that 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S. Occupational Safety and Health Act (OSHA), NTP of IARC.

Although is no specific test data on all the base oil components, the mineral base oil would not be expected to exhibit carcinogenic potential based on what is known of the toxicity of mineral base oils in general.

The DMSO extract by IP-346 of the oil is less than 3% (Typical 0.2% with Maximum 0.5%0. Consequently, it is not classified as a carcinogen.

The base oil in this product is severely hydro-treated by all hydro-processing route. By this refining history would be showed no evidence of carcinogenic potential.

MUTAGENIC EFFECTS: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.

TERATOGENIC EFFECTS/DEVELOPMENTAL TOXICITY: No component of this product at levels greater that 0.1% is classified by established regulatory criteria as teratogenic or embryonic.

REPRODUCTION TOXICITY: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a reproductive toxin.

OVER-EXPOSURE SIGNS/SYMPTOMS

Skin:	No known significant effects of critical hazards
Ingestion:	No known significant effects of critical hazards
Inhalation:	No known significant effects of critical hazards

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SECTION 12: ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material and similar materials.

ECOTOXICITY

Material not expected to be harmful to aquatic organisms.

MOBILITY

Miscible in water. Without agitation separation from water will occur with the oil floating to the water surface

PERSISTENCE AND DEGRADABILITY

Biodegradation is inherently expected

BIOACCUMULATION POTENTIAL

Has the potential to bio accumulate, however metabolism or physical properties may reduce the bio concentration or limit bioavailability?

ECOLOGICAL DATA

Data for Highly Refined Severely Hydrotreated oil for similar materials

TEST	Duration	Organism Type	Test Results
Aquatic – Chronic Toxicity	21 days	Water flea	NOELR 1.05 mg/l: data for similar
	7 days	Fish	NOEC: > 5,000 mg/l (IUCLID Dataset)
	7 days	Aquatic Invertebrates	NOEC: > 5,000 mg/l (IUCLID Dataset)

Care should be taken to minimize release of this product into the environment	
Environmental Fate & Distribution Persistence & Degradation Toxicity Effect on Effluent Treatment	No Data Available No Data Available Product may be partially removed in biological treatment processes

Other Typical (not a specification)	
Acute Toxicity to Fish	No Data Available
Effect Concentration on Algae	No Data Available
Ready Biodegradability	No Data Available
Respiration Inhibition	No Data Available
Absorption/Desorption	No Data Available
Abiotic Degradability-Hydrolysis	Not measurable

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SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods: This material must be disposed of according to Federal, State or local procedures under the Resource Conservation and Recovery Act:

"Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION: THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION 14: TRANSPORT INFORMATION

UN Proper Shipping Name:	Not regulated by DOT, IATA or IMDG
Marine Pollutant:	Not a Pollutant
Special Provisions for transport:	None identified

This product in non-hazardous. The product contains no known carcinogens. No special warning labels are required under OSHA 29CFR 1910.1200. OSHA hazard warnings are not applicable for this product. Therefore, no OSHA Warnings would appear on the label. No EPA hazard classification code. HS TARIFF CLASSIFICATION: 2710.19.4540

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SECTION 15: REGULATORY INFORMATION

Europe

Material is not dangerous as defined by the EU Dangerous Substances/Preparations Directives. EU LABELING: Not regulated according to EU directives. Material is not dangerous as defined by the EU Dangerous Substances/Preparations Directives

Classification and labeling have been performed according to EU Directives 67/548/EEC, 1999/45/EC and 2001/58/EC (including amendments) and the intended use

United States

EPA SARA Title III Chemical Listings

Section 302 Extremely Hazardous Substances: None
Section 304 CERCLA Hazardous Substances: None
SARA 311/312 CATEGORIES

1. Immediate (Acute) Health Effects: YES
2. Delayed (Chronic) Health Effects: NO
3. Fire Hazard: NO
4. Sudden Release of Pressure Hazard: NO
5. Reactivity Hazard: NO

OSHA HAZARD COMMUNICATION HAZARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200

Canada

WHMIS (Canadian Workplace Hazardous Materials Information Systems)
This product when tested as a whole is not a controlled substance within the meaning of the Hazardous Products Act.

Germany Water Hazardous Class (WGK): 1 (low hazard to water)

NATIONAL LEGISLATION/REGULATIONS

Ozone depleting chemicals: No ozone depleting chemicals are present or used in manufacture

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Complies with the following national/regional chemical inventory requirements: DSL, ENCS, T SCA

Special:

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SECTION 15: REGULATORY INFORMATION

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Complies with the following national/regional chemical inventory requirements: DSL, ENCS, T SCA

Special:

Inventory	Status
AICS	All components are listed or exempted
ELINCS	Restrictions Apply
IECSC	All components are listed or exempted
KECI	All components are listed or exempted
PICCS	All components are listed or exempted

Detail U.S. Regulations	US INVENTORY (TSCA 8b): Listed on inventory SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355): This product is not regulated under Section 302 of SARA and 40 CFR Part 355 SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370): Defined as Immediate (Acute) Health Effects by OSHA under 29 CFR 1910.1200 (d) SARA 313 toxic chemical notification and release reporting: No products were found CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4): This material is not regulated under CERCLA Sections 103 and 107

State Regulations	No products were found California Prop 65: No products were found

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SECTION 16: OTHER INFORMATION

This product safety data sheet was prepared in compliance and Conforms to HazComm 2012/United States. Certain elements refer to Commission Directive 2001/58/EC., 91/155/EEC, 67/548/EEC and 1999/45/EC for reference as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labeling of dangerous substances and preparations.

Date of Issue: 6-February 2018

ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labeling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978. ("Marpol") = marine pollution
UN = United Nations
N/D = Not determined; N/A = Not applicable

KEY TO THE RISK CODES IN SECTION 2 AND 3 OF THIS DOCUMENT (for information only)
EU Risk Phrases:
R20: Harmful by inhalation
R65: Harmful: may cause lung damage if swallowed
Safety Phrases:
S2: Keep out of reach of children
S62: Is swallowed do not induce vomiting: seek medical advice immediately and show this container or label

USA Hazardous Material Information System and National Fire Protection Association (U.S.A.)

Degree of Hazard	NFPA		HMIS		HAZARD RATINGS	
Health	1		1		Insignificant	
Fire	1		1		Slight	
Reactivity	0		0		Moderate	
Personal Protection			B		High	

The information and recommendations contained herein are, to the best of our knowledge and belied, accurate and reliable as of the date issued. You can contact us to ensure that this document is the most current available. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to satisfy health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided or retransmission of this document, in whole or in part is not permitted.