

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: SUNSPRAY ULTRA-FINE SPRAY OIL

Produced For: HollyFrontier Refining & Marketing LLC
International Plaza Two; Suite 423
Philadelphia, PA 19113

Product Use: Spray Oil
EPA Registration Number 86330-11

Emergency Phone Numbers:

Chemtrec	(800) 424-9300
Holly Refining & Marketing – Tulsa, LLC	(918) 594-6000
FAX	(918) 594-6909

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount (Vol%)
Mineral Oil (Petroleum Hydrocarbon)	Proprietary	98 – 100
Non-Ionic Emulsifier Blend	Proprietary	0 - 1

EXPOSURE GUIDELINES (SEE SECTION 15 FOR ADDITIONAL EXPOSURE LIMITS)

CAS No.	Governing Body	Exposure Limits

3. HAZARDS IDENTIFICATION

- EMERGENCY OVERVIEW**

Danger! Harmful or fatal if swallowed. Pulmonary aspiration hazard. While ingesting or vomiting, may enter lungs and produce damage. Heated material may cause injury.

Hazards Ratings:

Key: 0 = least, 1 = slight, 2 = moderate, 3 = high, 4 = extreme

	<u>Health</u>	<u>Fire</u>	<u>Reactivity</u>	<u>PPI</u>
NFPA	1	1	0	
HMIS	1	1	0	X

- POTENTIAL HEALTH EFFECTS**

- PRE-EXISTING MEDICAL CONDITIONS**

The following diseases or disorders may be aggravated by exposure to this product:
Dermatitis, respiratory system disorders, lung disorders (asthma-like conditions).

- **INHALATION**

Excessive exposure to mists or vapors generated by heat may cause irritation to eyes, nose, throat, lungs and respiratory tract.

LC50 (mg/l): no data

LC50 (mg/m3): no data

LC50 (ppm): no data

- **SKIN**

Practically non-toxic if absorbed through the skin. Substance may cause slight skin irritation. Contact with heated product may cause thermal burns.

Draize Skin Score: 1.84 Out of 8.0

LD50 (mg/kg): >5,000

- **EYES**

Contact with product at elevated temperatures can result in thermal burns.

- **INGESTION**

Harmful or fatal if swallowed. Pulmonary aspiration hazard. While ingesting or vomiting, may enter lungs and produce damage.

LD50 (g/kg): >15

4. FIRST AID MEASURES

- **INHALATION**

Remove to fresh air. If not breathing, call 911 or an ambulance, then give artificial respiration. If breathing is difficult, give oxygen and continue to monitor. Get medical attention.

- **SKIN**

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes followed by washing with soap and water. Get medical attention if irritation develops or persists. Wash clothing before reuse. For contact with heated product, flush immediately with plenty of cool water for at least 20 minutes.

- **EYES**

Hold eyelids apart and flush eyes slowly and gently with plenty of water for at least 20 minutes. Remove contact lenses, if present after the first 5 minutes, then continue rinsing the eye. If eye irritation persists, obtain medical treatment. For contact with heated product, flush immediately with plenty of cool water for at least 20 minutes. Get medical attention.

- **INGESTION**

Do not induce vomiting, unless told to do so by a doctor! Do not give liquids! Do not give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

- **EXTINGUISHING MEDIA**
Water spray; Regular foam; Dry chemical; Carbon dioxide;
- **FIRE FIGHTING INSTRUCTIONS**
Wear structural fire fighting gear. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

FLAMMABLE PROPERTIES

	Typical	Minimum	Maximum	Text Result	Units	Method
Flash Point	184	172			°C	D92
Autoignition Temperature	650			estimated	°F	D2155
Lower Explosion Limit				No data	%	N/A
Upper Explosion Limit				No data	%	N/A

6. ACCIDENTAL RELEASE MEASURES

Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Use appropriate personal protective equipment as stated in Section 8 of this MSDS. Advise the Environmental Protection Agency (EPA) and appropriate state agencies, if required. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Vacuum or sweep up material and place in a disposal container.

7. HANDLING AND STORAGE

- **HANDLING**
Avoid breathing (dust, vapor, mist, gas). Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Wash thoroughly after handling.
- **STORAGE**
Store in a cool dry place. Keep container closed when not in use. NFPA class IIIB storage. Flash point is greater than 200 degrees F.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult with a Health and Safety Professional for specific selections

- **ENGINEERING CONTROLS**
Use with adequate ventilation. Ventilation is normally required when handling or using this product to keep exposure to airborne contaminants below the recommended exposure limit. Mechanical ventilation recommended.
- **PERSONAL PROTECTION**
 - **EYE PROTECTION**
Safety glasses with side shields or splash proof chemical goggles are recommended to protect against the splash of product.

▪ **GLOVES or HAND PROTECTION**

Protective gloves are recommended when prolonged skin contact cannot be avoided. The glove(s) listed below may provide protection against permeation. . Polyvinyl chloride (PVC); Neoprene; Nitrile; Polyvinyl alcohol; Viton. Gloves of other chemically resistant materials may not provide adequate protection.

▪ **RESPIRATORY PROTECTION**

Concentration in air determines the level of respiratory protection needed. Use only NIOSH certified respiratory equipment. Respiratory protection is not usually needed unless product is heated or misted.. Half-mask air purifying respirator with dust / mist filters or HEPA filter cartridges is acceptable for exposures to ten (10) times the exposure limit. Full-face air purifying respirator with dust / mist filters or HEPA filter cartridges is acceptable for exposures to fifty (50) times the exposure limit. Protection by air purifying respirators is limited. Use a positive pressure-demand full-face supplied air respirator or SCBA for exposures greater than fifty (50) times the exposure limit. If exposure is above the IDLH (Immediately Dangerous to Life and Health) or there is the possibility of an uncontrolled release, or exposure levels are unknown, then use a positive pressure-demand full-face supplied air respirator with escape bottle or SCBA. Wear a NIOSH-approved (or equivalent) full face piece airline respirator in the positive pressure mode with emergency escape provisions.

▪ **OTHER**

Where splashing is possible, full chemically resistant protective clothing (e.g., acid suit) and boots are required. The following materials are acceptable for use as protective clothing: Polyvinyl alcohol (PVA); Polyvinyl chloride (PVC); Neoprene; Nitrile; Viton; Polyurethane; Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Remove contaminated clothing and wash before reuse. For non-fire emergencies, respiratory protection may be necessary and wear appropriate protective clothing to avoid contact with material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Property	Typical	Units	Text Result	Reference
Appearance	Colorless oil	N/A		
Boiling Range	318-363	°C		D2887
Bulk Density	7.08	lb/gal		D1250
Pour Point	-15	°C		D97 / D5950
Molecular Weight	300	g/mole		D2502
Octanol/Water Coefficient		N/A	No data	
pH		N/A	No data	
Specific Gravity	0.856		60/60F	D1298
Solubility in Water	Miscible	Wt%		
Odor	Slight	N/A		
Odor Threshold		ppm	No data	
Vapor Pressure	<0.0001	mmHg	@20°C	
Viscosity (F)	66.4	SUS	@100°F	D2161
Viscosity (C)	11.2	cSt	@40°C	D445
% Volatile	Nil	Wt%		D2369

10. STABILITY AND REACTIVITY

- **STABILITY**
Stable
- **CONDITIONS TO AVOID**
Avoid heat, sparks and open flame.
- **INCOMPATIBILITY**
Strong oxidizers
- **HAZARDOUS DECOMPOSITION PRODUCTS**
Combustion may produce carbon monoxide, carbon dioxide and other asphyxiants.
- **HAZARDOUS POLYMERIZATION**
Will not polymerize.

11. ECOLOGICAL INFORMATION

No data available

12. DISPOSAL CONSIDERATIONS

Follow federal, state and local regulations. This material is not a RCRA hazardous waste, if not contaminated. If material has been "used", RCRA criteria (ignitability, reactivity, corrosivity and toxicity) must be determined. Do not flush material to drain or storm sewer. Contract to authorized disposal service.

13. TRANSPORT INFORMATION

<u>Governing Body</u>	<u>Mode</u>	<u>Proper Shipping Name</u>
IATA	Air	Not Determined
IMDG	Marine	Not Regulated
DOT	Ground	Petroleum Oil NOIBN

<u>Governing Body</u>	<u>Mode</u>	<u>Hazard Class</u>	<u>UN/NA No.</u>	<u>Label</u>
IATA	Air	Not Determined		
IMDG	Marine			
DOT	Ground	N/A	N/A	

14. REGULATORY INFORMATION

Regulatory List	Component	CAS No.
Inventory - Australia (AICS)	Mineral Oil (Petroleum Hydrocarbon)	Proprietary
Inventory - Canada - Domestic Substances List	Mineral Oil (Petroleum Hydrocarbon)	Proprietary
Inventory – China	Mineral Oil (Petroleum Hydrocarbon)	Proprietary
Inventory - European EINECS Inventory	Mineral Oil (Petroleum Hydrocarbon)	Proprietary
Inventory – Japan – (ENCS)	Mineral Oil (Petroleum Hydrocarbon)	Proprietary
Inventory - Korea - Existing and Evaluated	Mineral Oil (Petroleum Hydrocarbon)	Proprietary
Inventory - Philippines Inventory (PICCS)	Mineral Oil (Petroleum Hydrocarbon)	Proprietary
Inventory – TSCA – Sect.8(b) Inventory	Mineral Oil (Petroleum Hydrocarbon)	Proprietary
Massachusetts Right to Know List	Mineral Oil (Petroleum Hydrocarbon)	Proprietary

This product contains residual amounts of toluene, a chemical known to the state of California to cause birth defects or other reproductive harm.

Title III Classifications Sections 311,312:

- Acute: **Yes**
- Chronic: **NO**
- Fire: **NO**
- Reactivity: **NO**
- Sudden Release of Pressure: **NO**

15. OTHER INFORMATION

Limits for the product- 5mg/m³, Oil Mist Limit, (OSHA PEL/ACGIH TLV)
 WHMIS Classification: not controlled.

The information and recommendations contained within this document are, to the best of HollyFrontier Refining & Marketing LLC's knowledge and belief, accurate and reliable as of the date issued. The information and recommendations are offered for the user's consideration and examination. We extend no warranties and make no representations as to the accuracy or completeness of the information contained herein and assume no responsibility regarding the suitability of this information for the users intended purpose or for the consequence of its use. It is the user's responsibility to satisfy itself that the product is suitable for the intended use and to insure proper health, safety and other necessary information is followed.