

SAFETY DATA SHEET

1. Identification:		
Product Identifier:	Refine® 3.5L	
Other Means of Identification:	EPA registration number 62097-48-82917	
Distributed by:	Fine Americas, Inc. 1850 Mt. Diablo Blvd., Suite 405, Walnut Creek, CA 94596, USA Tel: 925-932-8800	
Emergency Phone Number:	Chemtrec 1-800-424-9300 (24 hours)	
Recommended Use:	Plant growth regulator for thinning and control of pre-harvest drop of apples and pears, and for promoting return bloom of apples the following season.	
Restrictions on Use:	Keep out of reach of children	
2. Hazard(s) Identification (This product is classified as hazardous as defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200):		
Class/Category:	Eye irritation, category 2B	
Route of Exposure:	Most likely exposure by Dermal or oral route	
Hazards Not Otherwise Classified:	None	
Signal word:	WARNING	
Symbol(s):	None	
Hazard Statements:	H320 Causes eye irritation	
Precautionary Statements:	Prevention: P264 Wash hands thoroughly after handling. Response: P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P337+313 If eye irritation persists get medical advice / attention. Storage: None assigned Disposal: None assigned	
3. Composition:		
This product contains the following components classified as hazardous under 29 CFR 1910.1200		
CAS number:	Component:	Percent:
61-31-4	1-Naphthaleneacetic Acid, Sodium Salt (NAA Na)	3-4%
68515-73-1	Alkylpolysaccharides	<5%
The remainder of the mixture is not required to be disclosed by 29 CFR 1910.1200.		
4. First Aid Measures:		
Inhalation:	Remove patient to fresh air, allow to rest and keep warm.	
Skin:	Remove contaminated clothing and wash before reuse. Wash skin with soap and water for several minutes. Get medical attention if symptoms arise and persist.	
Eyes:	Flush immediately with plenty of water for at least 15 minutes, keeping eyelids open. Get medical attention if symptoms arise and persist.	
Ingestion:	DO NOT induce vomiting! Rinse mouth out and then drink plenty of water. Get medical attention if discomfort occurs.	
Symptoms/Effects:	Acute: May cause mild, transient eye or skin irritation Delayed: May cause mild, transient eye or skin irritation	
Indication of immediate medical attention and special treatment needed, if necessary:	No available information	
5. Fire Fighting Measures:		
Extinguishing Media:	Suitable: Water, foam, carbon dioxide or dry powder.	

	Unsuitable: None				
Specific Hazards Arising from the Chemical:	None known				
Protective Equipment and Precautions for Firefighters:	Wear suitable protective clothing, gloves, safety goggles.				
6. Accidental Release Measures:					
Personal Precautions, Protective Equipment and Emergency Procedures:	Refer to Section 8 "Exposure controls/personal protection"				
Methods for Containment and Clean-Up:	<p>On soil: Contain/absorb with non-combustible absorbent material (eg, sand, earth, vermiculite, chemical absorbent) and place in suitable, closable container for safe disposal.</p> <p>On water: None known, inform relevant authorities.</p> <p>See also Section 13. Disposal Considerations.</p>				
7. Handling and Storage:					
Precautions for Safe Handling:	Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.				
Conditions for Safe Storage:	Keep container tightly closed when not in use. Store in a cool, dry place. Protect from temperatures below 32°F. This product may freeze. If freezing should occur, thaw and shake gently to unify the product. Do not store diluted product. See also Section 10. Stability and Reactivity.				
8. Exposure Controls/Personal Protection:					
Component Exposure Limits:					
Substance	OSHA PEL		Cal/OSHA PEL	NIOSH REL	ACGIH TLV
	ppm	Mg/m3	8-hr TWA (ST) STEL (C) Ceiling	Up to 10 hr TW (ST) STEL (C) Ceiling A	8-hr TWA (ST) STEL (C) Ceiling
No listed components	-	-	-	-	-
Appropriate Engineering Controls:	No applicable information available.				
Personal Protective Equipment:	<p>Not normally necessary but in case of frequent or prolonged use wear equipment specified below. Always check applicability with your supplier of protective equipment.</p> <ul style="list-style-type: none"> - Respiratory protection: Wear particle filter such as EN143 fitted with P-SL filter if exposure to high levels of material is likely. - Skin protection: Laboratory coat or overalls. - Eye protection: Chemical goggles or full face visor. - Hand protection: Nitrile rubber or PVC gloves (Break-through times can vary depending on thickness, use and source. Change gloves regularly) - General hygiene: Do not eat, drink, or smoke while using this product. Immediately take off any contaminated clothing and launder before re-use. Wash hands and / or face before breaks and at the end of the shift. 				
9. Physical and chemical properties:					
Appearance:	Brown transparent liquid				
Odor:	Aromatic odor				
Odor Threshold:	No data available				
pH:	6.9				

Melting Point/Freezing Point:	No data available
Boiling Point:	> 212°F (100°C)
Flash Point:	> 212°F (100°C) (closed cup)
Evaporation Rate:	No data available
Flammability/Limits:	Not flammable LFL: not applicable UFL: not applicable
Vapor Pressure:	No data available
Vapor Density:	No data available
Relative Density:	1.03 g/ml
Solubility (H₂O):	Miscible
Partition Coefficient:	No data available
Auto-Ignition Temperature:	No data available
Decomposition Temperature:	No data available
Viscosity:	2.13 cSt at 68°F (20°C)
10. Chemical Stability and Reactivity Information:	
Reactivity:	Stable under recommended storage and handling conditions
Chemical Stability:	Stable under recommended storage and handling conditions
Possibility of Hazardous Reactions:	Stable under recommended storage and handling conditions
Conditions to Avoid:	Protect from high temperatures and sources of ignition.
Incompatible Materials:	Avoid accidental contact with strong acidic or alkaline solutions or oxidizing materials.
Hazardous Decomposition Products:	None known
11. Toxicological Information:	
Likely Routes of Exposure:	Contact with skin and eyes or by inhalation of spray
Symptoms:	May cause skin or eye irritation
Acute Toxicity:	Oral: LD ₅₀ Rat >2,000 mg/kg (EPA category III) Inhalation: LC ₅₀ Rat >5.08 mg/l (EPA category IV) Dermal: LD ₅₀ Rat >2000 mg/kg (EPA category III)
Skin Corrosion/Irritation:	Non-irritant (rabbit) (EPA category IV)
Serious Eye Damage/Eye Irritation:	Moderately irritating (rabbit) (EPA category III)
Sensitization:	Non-sensitizing (mouse)
Germ Cell Mutagenicity:	No evidence of mutagenic effects
Carcinogenicity:	None of the components of this product are listed as carcinogens by NTP, IARC or OSHA.
Reproductive/Developmental Toxicity:	No evidence of reproductive effects
Specific Target Organ Toxicity:	Single Exposure: No data available Repeated Exposure: No data available
12. Ecological Information:	
Ecotoxicity:	Based on the limited data set available, EPA believes that the naphthalene acetates risks are not of concern to non-target organisms, including mammals, birds, aquatic organisms, and non-endangered, non-target plants. Risks to terrestrial insects cannot be quantified, but the available data do not suggest a substantial potential for adverse effects. Therefore, no measures are needed to mitigate risk to non-target species and non-endangered, non-target plants. (Citation, NAA RED October 2007)
Persistence and Degradability:	No data available
Bioaccumulation Potential:	No data available.
Mobility in Soil:	No data available.
Other Adverse Effects:	None known
13. Disposal Considerations:	

Disposal Instructions:	<p>Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.</p> <p>Container disposal: Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, if available, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.</p>
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14. Transport Information:

UN Proper Shipping Name:	Not applicable
Hazard Class:	Not applicable
UN Number:	Not applicable
Packaging Group:	Not applicable
Marine Pollutant:	Not applicable
NMFC number/class:	101685/065 Plant growth inhibitor, modifier or regulator, NOIBN

15. Regulatory Information:

SARA:	No reportable components
CERCLA:	No reportable components
TSCA:	All components of this product are either listed or are exempt on the TSCA inventory. The following components of this product are subject to the reporting requirements of Section 12(b) of TSCA: None

Component Analysis – State:
 The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Propylene glycol	57-55-6				✓	✓	✓
California Prop 65:	No listings						

This chemical is a pesticide product registered 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 required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

EPA signal word:	CAUTION
Classifications under 40 CFR 156.63 are given in sections 9 and 11 where applicable	
Precautionary Statements:	KEEP OUT OF REACH OF CHILDREN.
Pictograms/Symbols:	None

16. Other Information:

Fine Agrochemicals Limited ("FINE") warrants that this Product conforms to the specifications on this label. To the extent consistent with applicable law, FINE makes no other warranties and disclaims all other warranties, express or implied, including but not limited to warranties of merchantability and fitness for a particular purpose. No agent of FINE or any other person is authorized to make any representation or warranty beyond those contained herein.

It is impossible to eliminate all risks associated with this Product. Plant injury, lack of performance, or other unintended consequences may result because of factors such as abnormal weather conditions, use of the Product other than in strict accordance with this label's instructions, presence of other materials, the manner of application or other factors, all of which are beyond the control of FINE or the seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

To the extent consistent with applicable law: 1) FINE disclaims any liability whatsoever for special, incidental or

Product: Refine 3.5L
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Version: 2



consequential damages resulting from the handling or use of this Product and 2) FINE's liability under this label shall be limited to the amount of the purchase price or, at the election of FINE, the free replacement of the Product.	
Issue Date/Version:	5/25/18 version 2
Supersedes:	2/1/18 version 1