

## SAFETY DATA SHEET

### 1. Identification

**Product identifier:** OROBOOST®

**Other means of identification**

**Product code:** 097-F-3-A

**Recommended use:** Adjuvant

**Recommended restrictions:** None Known

**Manufacturer/Importer/Supplier/Distributor information:**

Oro Agri, Inc.  
2788 S. Maple Ave  
Fresno, CA 93725

**Telephone Number:** +1 (559) 442-4996

**Email:** [SDS-NA@oroagri.com](mailto:SDS-NA@oroagri.com)

**Emergency Telephone Number:** Incident Spill, Leak, Fire, Exposure or Accident  
Call CHEMTREC Day or Night

Within USA and Canada:  
1 (800) 424-9300

Outside USA:  
+1 (703) 741-5970

### 2. Hazard(s) identification

**Physical Hazards**

Flammable liquids (Category 3)

**Health hazards**

Acute toxicity, inhalation (Category 4)

Serious eye damage/eye irritation (Category 2A)

**Environmental hazards**

Hazardous to the aquatic environment, acute hazard (Category 2)

Hazardous to the aquatic environment, long term hazard (Category 2)

**OSHA defined hazards**

Not classified.

**Label elements**



**Signal word**

Warning

**Hazard statement**

Flammable liquid and vapor. Harmful if inhaled. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

**Precautionary statement**

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/eye protection/face protection. Avoid breathing fume/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Avoid release to the environment.

#### Response

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. In case of fire: Use foam, carbon dioxide, dry powder or water fog for extinction.

#### Storage

Store in a well-ventilated place. Keep cool.

#### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Hazard(s) not otherwise classified (HNOC)

None known.

#### Supplemental Information

None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	CAS Number	%
Proprietary Mixture <sup>1</sup>		
Alcohol, C11-15-secondary, ethoxylated	68131-40-8	10-15
Orange, sweet, ext.	8028-48-6	5-10

#### Composition comments

<sup>1</sup> Components CAS numbers and exact concentration have been withheld as a trade secret.

### 4. First-aid measures

#### Inhalation

Move to fresh air. Call a Physician if symptoms develop or persist.

#### Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.

#### Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

#### Ingestion

Rinse mouth. Get medical attention if symptoms occur.

#### Most important symptoms/effects, acute and delayed

Harmful if inhaled. Mild eye irritation. Exposed individuals may experience eye tearing, redness, and discomfort.

#### Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

#### General information

Take off all contaminated clothing immediately. If exposed or concerned: get medical attention/advice. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

**Suitable extinguishing media**

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media**

Do not use water jet as an extinguisher, as this will spread the fire

**Specific hazards arising from the chemical**

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Firefighting equipment instructions**

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

**Specific methods**

Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**

Flammable liquid and vapor.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

**Precautions for safe handling**

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid contact with eyes. Avoid prolonged exposure. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**

Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

## Occupational exposure limits

### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<u>Components</u>	<u>Type</u>	<u>Value</u>
Ethanol (CAS 64-17-5)	PEL	1900 mg/m <sup>3</sup> 1000 ppm
Isopropyl Alcohol (CAS 67-63-0)	PEL	980 mg/m <sup>3</sup> 400 ppm

### US ACGIH Threshold Limit Values

<u>Components</u>	<u>Type</u>	<u>Value</u>
Ethanol (CAS 64-17-5)	STEL	1000 ppm
Isopropyl Alcohol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm

### US. NIOSH: Pocket Guide to Chemical Hazards

<u>Components</u>	<u>Type</u>	<u>Value</u>
Ethanol (CAS 64-17-5)	TWA	1900 mg/m <sup>3</sup> 1000 ppm
Isopropyl Alcohol (CAS 67-63-0)	STEL	1225 mg/m <sup>3</sup> 500 ppm
	TWA	980 mg/m <sup>3</sup> 400 ppm

## Biological limit values

### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<u>Components</u>	<u>Value</u>	<u>Determinant</u>	<u>Specimen</u>	<u>Sampling Time</u>
Isopropyl Alcohol (CAS 67-63-0)	40 mg/l	Acetone	Urine	Please refer to source document for sampling details.

## Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide easy access to water supply and eye wash facilities.

## Individual protection measures, such as personal protective equipment

### Eye/face protection

Wear safety glasses with side shields (or goggles).

### Skin protection

#### Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

#### Other

Wear suitable protective clothing.

### Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Selection and use of respiratory protective equipment should be in accordance with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

## General hygiene considerations

When using do not smoke. 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.

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## 9. Physical chemical properties

### Appearance

Physical state	Liquid.
Form	Liquid.
Color	Yellow/Orange.

### Odor

Citrus

### Odor threshold

Not available.

### pH

6.8 - 7.8

### pH temperature

20 °C (68 °F)

### Melting point/freezing point

Not available.

### Initial boiling point and boiling range

Not available.

### Flash point

40.0°C (104.0°F) Pensky-Martens Closed Cup

### Evaporate rate

Not available.

### Flammability (solid, gas)

Not available.

### Vapor pressure

Not available.

### Vapor density

Not available.

### Relative density

0.98 - 1.15 (Water = 1)

### Relative density temperature

20 °C (68 °F)

### Solubility(ies)

#### Solubility (water)

Complete

### Partition coefficient (n-octanol/water)

Not available.

### Auto-ignition temperature

Not available.

### Decomposition temperature

Not available.

### Viscosity

0 - 50 mPa·s

### Viscosity temperature

20 °C (68 °F)

## 10. Stability and reactivity

### Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

### Chemical stability

Material is stable under normal conditions.

### Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

### Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

### Incompatible materials

Strong oxidizing agents.

### Hazardous decomposition products

Thermal decomposition of this product can generate carbon monoxide and carbon dioxide. Sulphur oxides. Sodium oxides.

## 11. Toxicological information

### Information on likely routes of exposure

**Inhalation**

Harmful if inhaled.

**Skin contact**

Prolonged skin contact may cause temporary irritation.

**Eye contact**

Causes serious eye irritation.

**Ingestion**

May cause discomfort if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics**

Mild eye irritation. Exposed individuals may experience eye tearing, redness, and discomfort.

**Information on toxicological effects****Acute toxicity**

Not expected to be acutely toxic.

Product	Species	Test Results
OROBOOST (CAS Mixture)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rat	> 2000 mg/kg, (OECD 402)
<i>Inhalation</i>		
LD50	Rat	> 3.69 mg/l, (OECD 403)
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg, (OECD 425)

**Skin corrosion/irritation**

Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Eye contact**

OROBOOST OECD 405  
Result: Mild Irritant – reversible within 14 days.  
Species: Rabbit

**Respiratory or skin sensitization****Respiratory sensitization**

Not a respiratory sensitizer.

**Skin sensitization**

This product is not expected to cause skin sensitization.

**Sensitization**

OROBOOST OECD 406  
Result: Non-sensitizing  
Species: Guinea pig

**Germ cell mutagenicity**

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**

Not classifiable as to carcinogenicity to humans.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Isopropyl Alcohol (CAS 67-63-0)

3 Not classifiable as to carcinogenicity to humans.

**NTP Report on Carcinogens**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated

**Reproductive toxicity**

This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure**

Not Classified.

**Specific target organ toxicity - repeated exposure**

Not Classified.

**Aspiration hazard**

Not an aspiration hazard.

**Chronic effects**

Prolonged inhalation may be harmful.

**12. Ecological information****Ecotoxicity**

Toxic to aquatic life with long lasting effects.

Product	Species		Test Results
OROBOOST (CAS Mixture)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	IC50	Pseudokirchneriella subcapitata	7.14 mg/l, 72 hours
Crustacea	EC50	Daphnia	13.4 mg/l, 48 hours
Fish	LC50	Zebrafish (Danio rerio)	20.54 mg/l, 96 hours

**Persistence and degradability**

No data is available on the degradability of this product.

**Bioaccumulative potential**

No data available for this product.

**Mobility in soil**

No data available.

**Other adverse effects**

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**13. Disposal considerations****Disposal instructions**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations**

Dispose in accordance with all applicable regulations.

**Hazardous waste code**

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The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

#### **Waste from residues / unused products**

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

#### **Contaminated packing**

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## **14. Transport information**

### **DOT**

<b>UN number</b>	UN1993
<b>UN proper shipping name</b>	Flammable liquids, n.o.s (Ethanol; Orange Oil)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	III
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No
<b>Special precautions for users</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Special provisions</b>	IB2, T7, TP1, TP8, TP28
<b>Packing exceptions</b>	150
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242

### **IATA**

<b>UN number</b>	UN1993
<b>UN proper shipping name</b>	Flammable liquids, n.o.s (Ethanol; Orange Oil)
<b>Transport hazard classes(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	III
<b>Environmental hazards</b>	No
<b>ERG Code</b>	3H
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

### **IMDG**

<b>UN number</b>	UN1993
<b>UN proper shipping name</b>	Flammable liquids, n.o.s (Ethanol; Orange Oil)
<b>Transport hazard classes(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	III
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No
<b>EmS</b>	F-E, S-E
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

#### **Transport in bulk according to Annex II of MARPOL 73/78 and IBC code**

Not applicable.

#### **Additional Information**

Test results from Sustained Combustion testing (L.2 of Part 3 section 32 of UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria) indicate that this material does not sustain combustion. At the discretion of the shipper, this material does not need to be considered a Dangerous Good when offered for transport by ground in the U.S.

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according to 49 CFR 173.120(3), by air according to IATA DGR section 3.3.1.3(a), or by sea according to IMDG Code chapter 2.3.1.3.1.

## 15. Regulatory Information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

LISTED Isopropyl Alcohol (CAS 67-63-0)

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**

Immediate Hazard – Yes

Delayed Hazard – No

Fire Hazard – Yes

Pressure Hazard – No

Reactivity Hazard – No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical**

Yes.

**SARA 313 (TRI reporting)**

Isopropyl Alcohol (CAS 67-63-0): 1-5 %.

### Other federal regulations

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) list**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)**

Not Regulated

### US state regulations

**U.S. Massachusetts RTK - Substance List**

Ethanol (CAS 64-17-5), Isopropyl Alcohol (CAS 67-63-0)

**US. New Jersey Worker and Community Right-to-Know Act**

Ethanol (CAS 64-17-5), Isopropyl Alcohol (CAS 67-63-0)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Ethanol (CAS 64-17-5), Isopropyl Alcohol (CAS 67-63-0)

**US. Rhode Island RTK**

Ethanol (CAS 64-17-5), Isopropyl Alcohol (CAS 67-63-0).

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes

Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).		

## 16. Other information

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**NFPA ratings**



### Disclaimer

ORO AGRI cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. As conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained in accordance with all applicable occupational health and safety requirements.

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