

# Material Safety Data Sheet

Revision Date: 03-05-2013

## I. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** AIRWORKS 2.0 – ORCHARD SPICE  
**Product Code:**  
**Company:** HOSPECO  
26301 CURTISS WRIGHT  
PARKWAY  
RICHMOND HGTS, OH 44143  
**Intended use:** Odor counteractant

## II. HAZARDS IDENTIFICATION

**Routes of Entry:** Skin contact, Eye contact  
**Chemical Interactions That Change Toxicity:** None Known

### Immediate (Acute) Health Effects by Route of Exposure:

**Inhalation Irritation:** Can cause respiratory irritation.  
**Skin Contact:** Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.  
**Skin Absorption:** No absorption hazard in normal industrial use.  
**Eye Contact:** Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.  
**Ingestion Irritation:** Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.  
**Ingestion Toxicity:** Harmful if swallowed.

### Long-Term (Chronic) Health Effects:

**Carcinogenicity:** None of the substances have been shown to cause cancer in long term animal studies. Not a carcinogen according to NTP, IARC, or OSHA.  
**Reproductive and Developmental Toxicity:** No data available to indicate product or any components present at greater than 0.1% may cause birth defects.  
**Mutagenicity:** No data available to indicate product or any components present at greater than 0.1% is mutagenic or genotoxic.  
**Inhalation:** Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.  
**Skin Contact:** Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.  
**Skin Absorption:** Upon prolonged or repeated exposure, no hazard in normal industrial use.

**HMIS Rating:** Health: 1 Flammability: 2 Reactivity: 1

## III. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	%	CAS #	OSHA Exposure Limits
Cyclohexanol, 2-(1,1-dimethylethyl)-, 1-acetate	10 - 30	88-41-5	No PEL established
Terpenes and Terpenoids, lemon-oil	10 - 30	68917-33-9	No PEL established
Acetic acid, phenylmethyl ester	10 - 30	140-11-4	No PEL established
Benzoic acid, 2-hydroxy-, hexyl ester	5 - 10	6259-76-3	No PEL established
Heptanoic acid, 2-propen-1-yl ester	3 - 7	142-19-8	No PEL established
Ethanone, 1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthalenyl)-	3 - 7	21145-77-7	No PEL established
Propanoic acid, 2-methyl-, 2-phenoxyethyl ester	1 - 5	103-60-6	No PEL established

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Butanoic acid, 1,1-dimethyl-2-phenylethyl ester	1 - 5	10094-34-5	No PEL established
2(3H)-Furanone, 5-heptyldihydro-	1 - 5	104-67-6	No PEL established
2-Methyl-2,4-pentanediol	1 - 5	107-41-5	No PEL established
Heptanal, 2-(phenylmethylene)-	1 - 5	122-40-7	No PEL established
Butanoic acid, 3-oxo-, ethyl ester	1 - 5	141-97-9	No PEL established

Components not listed are not physical or health hazards as defined in 29 CFR 1910.1200 (Hazard Communication Standard).

The composition of this product is classified as a trade secret in accordance with CFR 29 1910. 1200 . Ingredients not precisely identified are proprietary or nonhazardous.

## IV. FIRST-AID MEASURES

<b>Inhalation:</b>	Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately
<b>Eyes:</b>	Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.
<b>Skin Contact:</b>	Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.
<b>Ingestion:</b>	Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this MSDS.
<b>Notes to Doctor:</b>	No additional first aid information available

## V. FIRE FIGHTING MEASURES

<b>Extinguishing Media:</b>	Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid.
<b>Fire and/or Explosion Hazards:</b>	Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.
<b>Fire Fighting Methods and Protection:</b>	Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface. Use methods for the surrounding fire.
<b>Hazardous Combustion Products:</b>	Carbon dioxide, Carbon monoxide, Toxic fumes., Toxic gases
<b>Flash Point °F (Closed Cup):</b>	145 ° F
<b>Autoignition Temperature °F:</b>	Not determined
<b>Upper Flammable/Explosive Limit, % in air:</b>	Not Available
<b>Lower Flammable/Explosive Limit, % in air:</b>	Not Available

## VI. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions and Equipment:</b>	No health affects expected from the clean-up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section VIII of this MSDS
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## Methods for Clean-up:

No special spill clean-up considerations. Collect and discard in regular trash.

## VII. HANDLING AND STORAGE

### Handling Technical Measures and Precautions:

Mildly irritating material. Avoid unnecessary exposure. As with all chemicals, good industrial hygiene practices should be followed when handling this material. Avoid contact with material, avoid breathing dusts or fumes, use only in a well ventilated area. Wash thoroughly after handling Do not get in eyes, on skin and clothing Use spark-proof tools and explosion-proof equipment Keep in air-tight containers- material is hygroscopic. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Remove contaminated clothing and wash before reuse

### Storage Technical Measures and Conditions:

Store in a cool dry place. Isolate from incompatible materials. Store in a cool dry place Store in a tightly closed container Keep away from heat, sparks, and flame

## VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Engineering Measures:

No exposure limits exist for the constituents of this product. Use local exhaust ventilation or other engineering controls to minimize exposures and maintain operator comfort. Engineering controls must be designed to meet the OSHA chemical specific standard in 29 CFR 1910. Explosion proof exhaust ventilation should be used. Ventilation is required to maintain operator exposure below published exposure limits. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits

### Respiratory Protection:

Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Follow a respiratory protection program that meets 29 CFR 1910.134 and ANSI Z88.2 requirements whenever work place conditions warrant the use of a respirator. Wear a NIOSH approved respirator if any exposure is possible.

### Eye Protection:

Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses. Wear goggles and a Face shield

### Skin Protection:

Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work Where contact is likely, wear chemical resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield

### Gloves:

No information available

### Control Parameters:

Chemical Name	ACGIH TLV-TWA	ACGIH STEL	IDLH
Cyclohexanol, 2-(1,1-dimethylethyl)-, 1-acetate	No TLV		ND
Terpenes and Terpenoids, lemon-oil	No TLV		ND
Acetic acid, phenylmethyl ester	No TLV		ND
Benzoic acid, 2-hydroxy-, hexyl ester	No TLV		ND
Heptanoic acid, 2-propen-1-yl ester	No TLV		ND
Ethanone, 1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthalenyl)-	No TLV		ND
Propanoic acid, 2-methyl-, 2-phenoxyethyl ester	No TLV		ND
Butanoic acid, 1,1-dimethyl-2-phenylethyl ester	No TLV		ND

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2(3H)-Furanone, 5-heptyldihydro-	No TLV	ND
2-Methyl-2,4-pentanediol	No TLV	ND
Heptanal, 2-(phenylmethylene)-	No TLV	ND
Butanoic acid, 3-oxo-, ethyl ester	No TLV	ND

## IX. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Liquid
<b>Color:</b>	PALE YELLOW
<b>Odor:</b>	Comparable to Standard
<b>pH:</b>	Not Available
<b>Solubility in Water:</b>	Soluble in water- No
<b>Octanol/Water Partition Coefficient:</b>	0.14
<b>Evaporation Rate:</b>	Not Available
<b>Vapor Density:</b>	> 1
<b>Flash Point °F (Closed Cup):</b>	145 ° F
<b>Boiling Point: °F</b>	Not Available
<b>Melting Point: °F</b>	Not Available
<b>Specific Gravity:</b>	0.9468

## X. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions.
<b>Conditions to Avoid:</b>	Temperatures above flash point in combination with sparks, open flames, or other sources of ignition. Contamination Elevated temperatures
<b>Materials to Avoid/Chemical Incompatibility:</b>	Strong oxidizing agents Acetic anhydride Strong acids Strong reducing agents Chlorinated compounds
<b>Hazardous Decomposition Products:</b>	Carbon dioxide Carbon monoxide Toxic fumes. Toxic gases

## XI. TOXICOLOGICAL INFORMATION

### Component Toxicology Data:

Chemical Name	CAS Number	LD50/LC50
2,4-Pentanediol, 2-methyl-	107-41-5	Inhalation LC50 Rat : >310 mg/m3/1H; Oral LD50 Rat : 3700 mg/kg; Oral LD50

## XII. ECOLOGICAL INFORMATION

**Overview:** This material is not expected to be harmful to the ecology.

## XIII. DISPOSAL CONSIDERATIONS

**Disposal Methods:** DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the sole responsibility of the waste generator. As your supplier, we have no control over the management practices or manufacturing processes of parties handling or using this material. The information presented here pertains only to the product when used as intended, according to this MSDS. For unused and uncontaminated product, the preferred options include sending to a licensed and permitted incinerator or other thermal destruction device. Various federal, state or provincial agencies may have specific regulations concerning the transportation, handling,

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storage, use or disposal of this product which may not be covered in this MSDS. The user shall have to review these regulations to ensure full compliance with all applicable regulations.

## XIV. TRANSPORTATION INFORMATION

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**US DOT Ground Shipping Description:** Not Restricted  
**IATA Shipping Description:** Not Restricted  
**IMDG Shipping Description:** Not Restricted

## XV. REGULATORY INFORMATION

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**TSCA Status** All components in this product are on the TSCA Inventory.

Chemical Name	CAS #	Regulation	% Range
Phenoxy Ethyl Isobutyrate	103-60-6	SARA 313	1 - 5

## XVI. ADDITIONAL INFORMATION

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**Disclaimer:** Important: While the descriptions, data and information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application/use, we recommend that you perform an assessment to determine the suitability of the product for your particular purpose prior to use. Nothing herein should be interpreted as a recommendation to infringe existing patents or violate any laws or regulations. No warranties of any kind, either expressed or implied, including fitness for a particular purpose are made regarding the product described. We assume NO responsibility for any injuries resulting from misuse or misapplication of this product or that might be sustained because of inhalation, ingestion, absorption or other contact with this product. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.