

## 1. Identification

<b>Product identifier</b>	Linit	
<b>Other means of identification</b>		
<b>Product Code</b>	4084	
<b>Recommended use</b>	Starch	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Manufacturer</b>		
<b>Company name</b>	Malco Products, Inc.	
<b>Address</b>	361 Fairview Ave Barberton, OH 44203 United States	
<b>Telephone</b>	Phone	800-253-2526
	Fax	330-777-8317
<b>Website</b>	www.malcopro.com	
<b>E-mail</b>	msdsinfo@malcopro.com	
<b>Contact person</b>	Technical Department	
<b>Emergency phone number</b>	Phone	1-800-424-9300

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Not classified.
<b>Environmental hazards</b>	Not classified.
<b>OSHA defined hazards</b>	Not classified.

### Label elements

<b>Hazard symbol</b>	None.
<b>Signal word</b>	None.
<b>Hazard statement</b>	Not available.
<b>Precautionary statement</b>	
<b>Prevention</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response</b>	If exposed or concerned: Get medical advice/attention.
<b>Storage</b>	Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	None.

## 3. Composition/information on ingredients

### Mixtures

<b>Chemical name</b>	<b>Common name and synonyms</b>	<b>CAS number</b>	<b>%</b>
Antipyonin		1303-96-4	1 - < 3
pentanedial		111-30-8	< 0.1
propan-2-ol		67-63-0	< 0.1
sodium;hydrogen sulfite		7631-90-5	< 0.1
Other components below reportable levels			90 - 100

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
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<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  Small Spills: 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.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment.
<b>Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

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

Components	Type	Value
propan-2-ol (CAS 67-63-0)	PEL	980 mg/m <sup>3</sup>
		400 ppm

#### US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value	Form
Antipyonin (CAS 1303-96-4)	STEL	6 mg/m <sup>3</sup>	Inhalable fraction.
	TWA	2 mg/m <sup>3</sup>	Inhalable fraction.
pentanedial (CAS 111-30-8)	Ceiling	0.05 ppm	

**US. ACGIH Threshold Limit Values (TLV)**

Components	Type	Value	Form
propan-2-ol (CAS 67-63-0)	STEL	400 ppm	
	TWA	200 ppm	
sodium;hydrogen sulfite (CAS 7631-90-5)	TWA	5 mg/m3	

**NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended**

Components	Type	Value
propan-2-ol (CAS 67-63-0)	IDLH	2 %
		2000 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)**

Components	Type	Value
Antipyonin (CAS 1303-96-4)	TWA	5 mg/m3
pentanedial (CAS 111-30-8)	Ceiling	0.8 mg/m3
		0.2 ppm
propan-2-ol (CAS 67-63-0)	STEL	1225 mg/m3
		500 ppm
	TWA	980 mg/m3
sodium;hydrogen sulfite (CAS 7631-90-5)		400 ppm
	TWA	5 mg/m3

**Biological limit values****ACGIH Biological Exposure Indices (BEI)**

Components	Value	Determinant	Specimen	Sampling Time
propan-2-ol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*

\* - For sampling details, please see the source document.

**Appropriate engineering controls**

Good general ventilation 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.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Chemical respirator with organic vapor cartridge and full facepiece.

**Skin protection**

**Hand protection** Wear appropriate chemical resistant gloves.

**Other** Use of an impervious apron is recommended.

**Respiratory protection** Chemical respirator with organic vapor cartridge and full facepiece.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Observe any medical surveillance requirements.

**9. Physical and chemical properties**

<b>Appearance</b>	Hazy
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	White Translucent
<b>Odor</b>	Floral/Citrus
<b>Odor threshold</b>	Not available.
<b>pH</b>	> 8.5 - < 9.5
<b>Melting point/freezing point</b>	167 °F (75 °C) estimated
<b>Initial boiling point and boiling range</b>	211.95 °F (99.97 °C) estimated
<b>Flash point</b>	>220.0 °F (>104.4 °C)

Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	-0.01 hPa estimated
Vapor density	Not available.
Relative density	Not available.
<b>Solubility(ies)</b>	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	30 cP
Viscosity temperature	68 °F (20 °C)
<b>Other information</b>	
Density	8.67 lbs/gal
Explosive properties	Not explosive.
Flammability class	Combustible IIIB estimated
Kinematic viscosity	28.8463 cSt
Kinematic viscosity temperature	68 °F (20 °C)
Oxidizing properties	Not oxidizing.
VOC	0 % w/w By Weight

## 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	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

**Acute toxicity** Not known.

Components	Species	Test Results
Antipyonin (CAS 1303-96-4)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg

Components	Species	Test Results
<b>Inhalation</b>		
LC50	Rat	> 2 mg/m3, 4 Hours
<b>Oral</b>		
LD50	Rat	396 - 689 mg/kg
pentanedial (CAS 111-30-8)		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Rat	0.28 mg/l, 4 Hours
propan-2-ol (CAS 67-63-0)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	12870 mg/kg
<b>Inhalation</b>		
LC50	Rat	51.05 mg/l, 8 Hours
<b>Oral</b>		
LD50	Rat	4.7 g/kg
sodium;hydrogen sulfite (CAS 7631-90-5)		
<b>Acute</b>		
<b>Oral</b>		
LD50	Rat	2 g/kg

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.

#### Respiratory or skin sensitization

##### ACGIH sensitization

Glutaraldehyde, activated and inactivated  
(CAS 111-30-8)

Dermal sensitization

Respiratory sensitization

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**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

Not listed.

##### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

##### US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

**Reproductive toxicity** May damage fertility or the unborn child.

**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** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
propan-2-ol (CAS 67-63-0)		
<b>Aquatic</b>		
<i>Acute</i>		
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> ) > 1400 mg/l, 96 hours
sodium;hydrogen sulfite (CAS 7631-90-5)		
<b>Aquatic</b>		
<i>Acute</i>		
Fish	LC50	Western mosquitofish ( <i>Gambusia affinis</i> ) 240 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential**

Partition coefficient n-octanol / water (log Kow)	
pentanediol	-0.33
propan-2-ol	0.05

**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**

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	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).
<b>Contaminated packaging</b>	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**

<b>DOT</b>	Not regulated as dangerous goods.
<b>IATA</b>	Not regulated as dangerous goods.
<b>IMDG</b>	Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

**15. Regulatory information**

<b>US federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
<b>Toxic Substances Control Act (TSCA)</b>	One or more components of the mixture are not on the TSCA 8(b) inventory or are designated "inactive".
<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	Not regulated.
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>	
sodium;hydrogen sulfite (CAS 7631-90-5)	Listed.
<b>SARA 304 Emergency release notification</b>	
	Not regulated.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>	
	Not listed.

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

### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** No

### SARA 313 (TRI reporting)

Not regulated.

## 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)** Contains component(s) regulated under the Safe Drinking Water Act.

### FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

propan-2-ol (CAS 67-63-0)

Low priority

## US state regulations

### US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Antipyonin (CAS 1303-96-4)  
pentanedial (CAS 111-30-8)  
propan-2-ol (CAS 67-63-0)

### 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. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply 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, including date of preparation or last revision

**Issue date** 08-11-2015

**Revision date** 10-02-2023

**Version #** 04

### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Malco Products, Inc. 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.

### Revision information

This document has undergone significant changes and should be reviewed in its entirety.