



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** Epic Ascend Ceramic Coating

### Other means of identification

**Product Code** 109380

**Recommended use** Not available.

**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor information

#### Manufacturer

**Company name** Malco Products, Inc.  
**Address** 361 Fairview Ave  
Barberton, OH 44203  
United States

**Telephone** Phone 800-253-2526  
Fax 330-753-2025

**Website** www.malcopro.com  
**E-mail** msdsinfo@malcopro.com

**Contact person** Technical Department

**Emergency phone number** Phone 1-800-424-9300

**Supplier** Not available.

## 2. Hazard identification

**Physical hazards** Flammable liquids Category 3

**Health hazards** Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2

Carcinogenicity Category 2

**Environmental hazards** Hazardous to the aquatic environment, acute hazard Category 3

Hazardous to the aquatic environment, long-term hazard Category 3

### Label elements



**Signal word** Danger

**Hazard statement** Highly flammable liquid and vapor. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing cancer.

### Precautionary statement

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

**Response** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.

<b>Storage</b>	Store in a well-ventilated place. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Supplemental information</b>	15% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 15% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.
<b>Other hazards</b>	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
1-chloro-4-(trifluoromethyl)benzene		98-56-6	10 - < 20
tert-butyl acetate		540-88-5	10 - < 20
Other components below reportable levels			70 - < 80

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
<b>Eye contact</b>	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.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
<b>Indication of immediate medical attention and special treatment needed</b>	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.
<b>General information</b>	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. 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

<b>Suitable extinguishing media</b>	Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
<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>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. 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>	In case of fire and/or explosion do not breathe fumes. 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>	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. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. 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. Put material in suitable, covered, labeled containers. 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. Use appropriate containment to avoid environmental contamination.

## 7. Handling and storage

### Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. 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, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

### Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in 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. ACGIH Threshold Limit Values (TLV)

#### Components

tert-butyl acetate (CAS 540-88-5)

#### Type

STEL

#### Value

150 ppm

TWA

50 ppm

**Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended**

Components	Type	Value
tert-butyl acetate (CAS 540-88-5)	TWA	950 mg/m <sup>3</sup>
		200 ppm

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act), as amended**

Components	Type	Value
tert-butyl acetate (CAS 540-88-5)	STEL	150 ppm
	TWA	50 ppm

**Canada. New Brunswick OELs: Threshold Limit Values (TLVs) Based on the 1991 and 1997 ACGIH TLVs and BEIs Publication (New Brunswick Regulation 91-191)**

Components	Type	Value
tert-butyl acetate (CAS 540-88-5)	STEL	150 ppm
	TWA	50 ppm

**Canada. Ontario OELs (Regulation 833, Control of Exposure to Biological or Chemical Agents), as amended**

Components	Type	Value
tert-butyl acetate (CAS 540-88-5)	STEL	150 ppm
	TWA	50 ppm

**Canada. Quebec OELs (Regulation respecting occupational health and safety, v. S-2.1, r.13), as amended**

Components	Type	Value
tert-butyl acetate (CAS 540-88-5)	STEL	150 ppm
	TWA	50 ppm

**Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996; Table 21), as amended**

Components	Type	Value
tert-butyl acetate (CAS 540-88-5)	15 minute	250 ppm
	8 hour	200 ppm

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Explosion-proof general and local exhaust ventilation. 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. Provide eyewash station and safety shower.

**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** Wear appropriate chemical resistant clothing. 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. 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.

**9. Physical and chemical properties**

**Physical state** Liquid.

**Form** Liquid.

**Color** Colorless

<b>Odor</b>	Solvent.
<b>Melting point/freezing point</b>	-27.4 °F (-33 °C) estimated
<b>Boiling point or initial boiling point and boiling range</b>	163.4 °F (73 °C) estimated
<b>Flammability</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	1.5 % estimated
<b>Explosive limit - upper (%)</b>	Not available.
<b>Flash point</b>	73.4 °F (23.0 °C) estimated
<b>Auto-ignition temperature</b>	797 °F (425 °C) estimated
<b>Decomposition temperature</b>	Not available.
<b>pH</b>	Not available.
<b>Kinematic viscosity</b>	Not available.
<b>Solubility</b>	
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water) (log value)</b>	Not available.
<b>Vapor pressure</b>	36.42 hPa estimated
<b>Density and/or relative density</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Particle characteristics</b>	Not available.
<b>Other information</b>	
<b>Explosive properties</b>	Not explosive.
<b>Flammability class</b>	Flammable IC estimated
<b>Oxidizing properties</b>	Not oxidizing.
<b>Specific gravity</b>	1.02
<b>Viscosity</b>	5 cP

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents. Nitrates.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
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### Information on toxicological effects

<b>Acute toxicity</b>	Not known.
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Components	Species	Test Results
1-chloro-4-(trifluoromethyl)benzene (CAS 98-56-6)		
<b>Acute</b>		
<b>Inhalation</b>		
LC50	Rat	33 mg/l, 4 Hours
<b>Oral</b>		
LD50	Rat	13000 mg/kg
<b>Skin corrosion/irritation</b>	Causes skin irritation.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.	
<b>Respiratory or skin sensitization</b>		
<b>Canada - Alberta OELs: Irritant</b>		
tert-butyl acetate (CAS 540-88-5)	Irritant	
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.	
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	Suspected of causing cancer.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
1-chloro-4-(trifluoromethyl)benzene (CAS 98-56-6)	2B Possibly carcinogenic to humans.	
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Not an aspiration hazard.	
<b>Chronic effects</b>	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.	

## 12. Ecological information

### Ecotoxicity

Components	Species	Test Results
tert-butyl acetate (CAS 540-88-5)		
<b>Aquatic</b>		
<i>Acute</i>		
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> ) 296 - 362 mg/l, 96 hours

**Persistence and degradability** No data is available on the degradability of any ingredients in the mixture.

### Bioaccumulative potential

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

1-chloro-4-(trifluoromethyl)benzene	3.6
tert-butyl acetate	1.76

**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** 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 packaging**

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**

**TDG**

**UN number** UN1993  
**UN proper shipping name** FLAMMABLE LIQUID, N.O.S.  
**Transport hazard class(es)**  
**Class** 3  
**Subsidiary hazard** -  
**Packing group** III  
**Environmental hazards** No.  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**IATA**

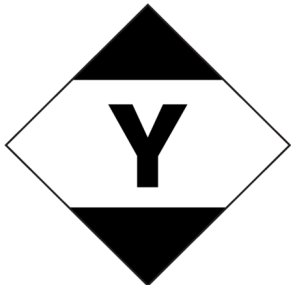
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**UN proper shipping name** FLAMMABLE LIQUID, N.O.S., Limited Quantity  
**Transport hazard class(es)**  
**Class** 3  
**Subsidiary hazard** -  
**Packing group** III  
**Environmental hazards** No.  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

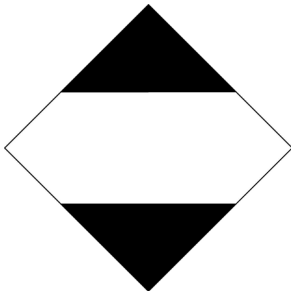
**UN number** UN1993  
**UN proper shipping name** FLAMMABLE LIQUID, N.O.S., Limited Quantity  
**Transport hazard class(es)**  
**Class** 3  
**Subsidiary hazard** -  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** No.  
**EmS** Not assigned.  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

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

**IATA**



**IMDG**





## 15. Regulatory information

### Canadian regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

#### Controlled Drugs and Substances Act

Not regulated.

#### Export Control List (CEPA 1999, Schedule 3)

Not listed.

#### Greenhouse Gases

Not listed.

#### Precursor Control Regulations

Not regulated.

### International regulations

#### Stockholm Convention

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Kyoto protocol

Not applicable.

#### Montreal Protocol

Not applicable.

#### Basel Convention

Not applicable.

### 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

**Issue date** 11-14-2024

**Revision date** 12-05-2024

**Version #** 03

### 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.