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SAFETY DATA SHEET

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Section 1. Identificatio	n	
GHS product identifier Chemical name CAS number Other means of identification Product type	:	ORANGE ACETAL LM Mixture Mixture CC10407745 solid
<u>Relevant identified uses of the substa</u> Product use	ance :	e or mixture and uses advised against Industrial applications.
Supplier's details	:	AVIENT CORPORATION 33587 Walker Road, Avon Lake, OH 44012
		1 (440) 930-1000 or 1 (844) 4AVIENT
Emergency telephone number (with hours of operation)	:	CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).

Section 2. Hazards identification

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. After handling, always wash hands thoroughly with soap and water.

OSHA/HCS status	:	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	:	Not classified.
GHS label elements		
Signal word Hazard statements	:	No signal word. No known significant effects or critical hazards.

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Precautionary statements

	:	Not applicable.
Prevention	:	Not applicable.
Response	:	Not applicable.
Storage	:	Not applicable.
Disposal	:	Not applicable.
Supplemental label elements	:	None known.
Hazards not otherwise classified	:	None known.
		Not available.

Section 3. Composition/information on ingredients

Substance/mixture	:	Mixture
Chemical name	:	Mixture
Other means of identification	:	CC10407745

CAS number/other identifiers

Ingredient name	%	CAS number
Antimony trioxide	>= 10 - <= 25	1309-64-4
Titanium dioxide	>= 3 - <= 5	13463-67-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of

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	inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated
	clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: Wash out mouth with water. If material has been swallowed and the
	exposed person is conscious, give small quantities of water to drink.
	Do not induce vomiting unless directed to do so by medical personnel.
	Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects	
Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/symptoms	
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	No specific data.
Ingestion	: No specific data.
Indication of immediate medica	l attention and special treatment needed, if necessary
Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or CO ₂ .
Unsuitable extinguishing media	:	None known.

suitable training.

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Specific hazards arising from the chemical	:	No specific fire or explosion hazard.
Hazardous thermal decomposition products	:	If overheated or burnt, the polymer releases formaldehyde. Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
Special protective actions for fire- fighters Special protective equipment for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel For emergency responders	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and materials for containme	nt ai	nd cleaning up
Small spill	:	Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	:	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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Section 7. Handling and storage

Precautions for safe handling

Protective measures Advice on general occupational hygiene	:	Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits	
Antimony trioxide	NIOSH REL (1994-06-01)	
	TWA 0.5 mg/m3	
	OSHA PEL 1989 (1989-03-01)	
	TWA 0.5 mg/m3 (as Sb)	
	OSHA PEL (1993-06-30)	
	TWA 0.5 mg/m3 (as Sb)	
	ACGIH TLV (2021-01-07)	
	TWA 0.02 mg/m3 Form: Inhalable fraction	
Titanium dioxide	OSHA PEL 1989 (1989-03-01)	
	TWA 10 mg/m3 Form: Total dust	
	OSHA PEL (1993-06-30)	
	TWA 15 mg/m3 Form: Total dust	
	ACGIH TLV (2022-01-06)	
	TWA 0.2 mg/m3 Form: respirable fraction, nanoscale particles	
	TWA 2.5 mg/m3 Form: respirable fraction, finescale particles	

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Appropriate engineering controls	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.	
Environmental exposure controls	 Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbe filters or engineering modifications to the process equipment will necessary to reduce emissions to acceptable levels. 	
Individual protection measures		
Hygiene measures Eye/face protection	 Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure the following protection should be worn, unless the assessment indicates higher degree of protection: safety glasses with side-shields. 	to
Skin protection		
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical product if a risk assessment indicates this is necessary.	S
Body protection	 Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. 	
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.	
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.	ıt

Section 9. Physical and chemical properties

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Appearance

Physical state

solid [Pellets.]

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Color Odor Odor threshold pH Melting point Boiling point Flash point		ORANGE Faint odor. Not available. Not available. Not available. Not applicable.
		
Burning time	:	Not available.
Burning rate	:	Not available.
Evaporation rate	:	Not available. Not available.
Flammability (solid, gas) Lower and upper explosive	:	Lower: Not applicable.
(flammable) limits	•	Upper: Not applicable.
(nanimable) nimes		epper. Not applicable.
Vapor pressure	:	Not available.
Vapor density	:	Not applicable.
		NT
Relative density	:	Not available.
Solubility	:	Not available.
Solubility in water	:	insoluble in water.
Partition coefficient: n- octanol/water	:	Not applicable.
Auto-ignition temperature	:	Not applicable.
Decomposition temperature	:	Not available.
SADT	:	Not available.
Viscosity	:	Dynamic: Not available.
		Kinematic: Not applicable.

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	Stable under recommended storage and handling conditions (see Section 7).
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Maintain polymer temperature below 230°C (446°F). Avoid prolonged exposure at or above recommended processing temperature.
Incompatible materials	:	Incompatible with strong oxidizers and with strong acids and bases (decomposes to form formaldehyde). At melt temperatures, acetal

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resins are incompatible with halogenated polymers such as vinyl (PVC) and any elastomers containing any halogenated polymers. At processing conditions, these materials are mutually destructive and involve rapid degradation. Even small amounts of such contaminants can cause sudden and spontaneous formaldehyde gas formation. Workplace fume well above threshold levels are a likely result. Unsafe pressurization of equipment such as extruder or mold can also result. Thoroughly purge and mechanically clean processing equipment to avoid even trace quantities of halogenated materials from coming in contact with the acetal. Prevent contamination of virgin or rework resin.

Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

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Information on toxicological effects

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Product/ingredient name	Result	Species	Dose	Exposure
Antimony oxide (Sb2O3)				
	LD50 Oral	Rat	34,000 mg/kg	-
Titanium oxide (TiO2)				
	LC50 Inhalation	Rat - Male	6.82 Mg/l	4 h
	Dusts and mists			
	LD50 Dermal	Rabbit	> 5,000 mg/kg	-

Conclusion/Summary

Mixture.Not fully tested.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Antimony oxide (Sb2O3)	Eyes - Mild irritant	Rabbit	-		-

Conclusion/Summary		
Skin	:	Mixture.Not fully tested.
Eyes	:	Mixture.Not fully tested.
Respiratory	:	Mixture.Not fully tested.
<u>Sensitization</u>		
Conclusion/Summary		
Skin	:	Mixture.Not fully tested.
Respiratory	:	Mixture.Not fully tested.

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Mutagenicity

Conclusion/Summary : Mixture.Not fully tested.

Carcinogenicity

Conclusion/Summary : Mixture.Not fully tested.

Classification

Product/ingredient name	OSHA	IARC	NTP
Antimony oxide (Sb2O3)	-	2A	Reasonably anticipated to be a human carcinogen.
Titanium oxide (TiO2)	-	2B	-

Reproductive toxicity

Conclusion/Summary : Mixture.Not fully tested.

Teratogenicity

Conclusion/Summary : Mixture.Not fully tested.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of : Not available. **exposure**

Potential acute health effects

Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	No specific data.

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Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure		
Potential immediate effects Potential delayed effects	:	Not available. Not available.
Long term exposure		
Potential immediate effects Potential delayed effects	:	Not available. Not available.
Potential chronic health effects		
Conclusion/Summary	:	Mixture.Not fully tested.
General Carcinogenicity Mutagenicity Teratogenicity Developmental effects Fertility effects	::	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. Not available. Not available. No known significant effects or critical hazards.
<u>Numerical measures of toxicity</u> <u>Acute toxicity estimates</u> N/A		
Other information	:	This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Antimony oxide (Sb2O3)			
	Acute LC50 > 530 Mg/l Fresh water	Fish - Lepomis macrochirus	96 h
	Acute EC50 560 Mg/l Fresh water	Crustaceans - Cypris subglobosa	48 h

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	Acute EC50 3.01 Mg/l Fresh water	Daphnia - Daphnia magna	48 h
Titanium oxide (TiO2)			1
	Acute LC50 > 1,000 Mg/l Marine water	Fish - Fundulus heteroclitus	96 h
	Acute LC50 3 Mg/l Fresh water	Crustaceans - Ceriodaphnia dubia	48 h
	Acute LC50 6.5 Mg/l Fresh water	Daphnia - Daphnia pulex	48 h
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Remarks - Acute - Aquatic invertebrates.:	Chemicals are not readily availabl	le as they are bound within the po	lymer matrix.
Conclusion/Summary	: Chemicals are not read polymer matrix.	lily available as they are bound wi	thin the
Persistence and degradability			
Conclusion/Summary	: Chemicals are not read polymer matrix.	dily available as they are bound w	rithin the
Conclusion/Summary	: Chemicals are not read polymer matrix.	dily available as they are bound w	rithin the
Bioaccumulative potential Not available.			
Mobility in soil			
	t : Not available.		
Soil/water partition coefficien (KOC)			

Section 13. Disposal considerations

Disposal methods : T possible sh pr au pr au pr di
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requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Acute hazardous waste "P" List: Not listed

United States - RCRA Toxic hazardous waste "U" List: Not listed

Section 14. Transport information

U.S.DOT 49CFR Ground/Air/Water	:	Not regulated for transportation.
International Air ICAO/IATA	:	Not classified as dangerous goods under transport regulations.
International Water IMO/IMDG	:	Not classified as dangerous goods under transport regulations.

Section 15. Regulatory information

U.S. Federal regulations	: United States - TSCA 12(b) - Chemical export notification: None
	of the components are listed.
	United States - TSCA 4(a) - Final Test Rules: Not listed
	United States - TSCA 4(a) - ITC Priority list: Not listed
	United States - TSCA 4(a) - Proposed test rules: Not listed
	United States - TSCA 4(f) - Priority risk review: Not listed
	United States - TSCA 5(a)2 - Final significant new use rules: Not
	listed
	United States - TSCA 5(a)2 - Proposed significant new use rules:
	Not listed
	United States - TSCA 5(e) - Substances consent order: Not listed
	United States - TSCA 6 - Final risk management: Not listed
	United States - TSCA 6 - Proposed risk management: Not listed
	United States - TSCA 8(a) - Chemical risk rules: Not listed
	United States - TSCA 8(a) - Dioxin/Furane precusor: Not listed
	United States - TSCA 8(a) - Chemical Data Reporting (CDR): Not
	determined
	United States - TSCA 8(a) - Preliminary assessment report
	(PAIR): Not listed
	United States - TSCA 8(c) - Significant adverse reaction (SAR):
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Not listed United States - TSCA 8(d) - Health and safety studies: Not listed United States - EPA Clean water act (CWA) section 307 - Priority pollutants: Listed Antimony trioxide United States - EPA Clean water act (CWA) section 311 -Hazardous substances: Listed United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Flammable substances: Not listed United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Toxic substances: Not listed United States - Department of commerce - Precursor chemical: Not listed Clean Air Act Section 112(b) Listed : Hazardous Air Pollutants (HAPs) **Clean Air Act Section 602 Class I** Not listed : Substances **Clean Air Act Section 602 Class II** : Not listed

DEA List II Chemicals (Essential : Not listed **Chemicals**)

DEA List I Chemicals (Precursor

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Chemical Name	CAS-No.	RQ for component
Antimony trioxide	1309-64-4	1,000 lb(s)
		454 kg

SARA 311/312

Substances

Chemicals)

Classification

Not applicable.

Not listed

:

:

Composition/information on ingredients

No products were found.

Name	%	Classification
Antimony oxide (Sb2O3)	>= 10 - <= 25	EYE IRRITATION - Category 2B CARCINOGENICITY - Category 1B
Titanium oxide (TiO2)	>= 3 - <= 5	CARCINOGENICITY - Category 2

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SARA 313

Form R - Reporting requirements

Product name	CAS number	%
Antimony trioxide	1309-64-4	>= 10 - < 30

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations	
Massachusetts	: The following components are listed: Antimony trioxide Titanium dioxide
New York	: The following components are listed: Antimony trioxide
New Jersey	: The following components are listed: Antimony trioxide Titanium dioxide
Pennsylvania	: The following components are listed: Antimony trioxide
	Titanium dioxide

California Prop. 65

WARNING: This product can expose you to chemicals including Antimony trioxide, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
Antimony trioxide	-	-
Titanium dioxide	-	-

United States inventory (TSCA 8b)	:	All components are active or exempted.			
Canada inventory	:	All components are listed or exempted.			
<u>International regulations</u> Inventory list					
Australia	:	Not determined.			
Canada	:	All components are listed or exempted.			
China	:	Not determined.			
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:	Russian Federation inventory: Not determined.
:	Japan inventory (CSCL): Not determined.
	Japan inventory (ISHL): Not determined.
:	Not determined.
:	Not determined.
:	All components are listed or exempted.
:	All components are listed or exempted.
:	Not determined.
:	Not determined.
:	All components are active or exempted.
:	Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	/	0
Flammability		0
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual. History

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:	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From
	Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
:	Not available.
	: : : : : : : : : : : : : : : : : : : :

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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Particularly this information may not be valid for such material used in conjunction with any other materials or in any process, unless specified in the text.