



# MATERIALS SAFETY DATA SHEET

Product: CATALYST S-21

SDS No.: SP807-01

Version:5.1

Effective Date: 2021-05-01

## 01-PRODUCT AND COMPANY IDENTIFICATION

SUPPLIER: MATRIX (Guangzhou) Metamaterials Co.,Ltd.  
No.4 XinAn Road Yong He,  
Guangzhou Economic & Technological,  
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CUSTOMER SERVICE +86 (0)20 3222 2632 ( 9:00 AM – 5:30PM )

PRODUCT NAME CATALYST S-21

CHEMICAL FORMULA  $Sb(C_2H_3O_2)_3$

CHEMICAL NAME Antimony triacetate

CHEMICAL FAMILY Inorganic antimony compound

EPA Reg Num NA

PRODUCT USE Catalyst used in the manufacture of polyester by polycondensation reactions.

EMERGENCY PHONE NUMBER +86 (0)532 8388 9090

## 02-COMPOSITION / INFORMATION ON INGREDIENTS

Identity	CAS No	Typical (%)	OSHA Hazard
Antimony triacetate	6923-52-0	>99	Y

The substance(s) marked with a "Y" in the OSHA column, are identified as hazardous chemicals according to the criteria of the OSHA Communication Standard (29 CFR 1910.1200)

The components of this product are either on the TSCA Inventory list or exempt as impurities.

This material is classified as hazardous under Federal OSHA regulation.

## 03-HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

Whitish wet crystals with a strong vinegar odor.  
Danger!

CAUSES EYE AND SKIN BURNS. MAY CAUSE BLINDNESS.  
MAY CAUSE RESPIRATORY TRACT IRRITATION.

CONTAINS ANTIMONY WHICH CAUSES LUNG, HEART, LIVER, KIDNEY & SPLEEN DAMAGE IF SWALLOWED

### POTENTIAL HEALTH EFFECTS

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. Based on single exposure animal tests, it is considered to be slightly toxic if swallowed, no more than slightly toxic if absorbed through skin, and corrosive to eyes and skin. Excessive exposure to dust or vapor may produce irritation of the nose, throat and eyes and, over the longer term, transient skin lesions called "antimony spots," chronic emphysema and other lung effects. Accidental swallowing may cause vomiting, diarrhea, ulcers, stomach pain and, in severe cases, death.



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Medical conditions that may be aggravated by exposure to this material include lung disease or limited respiratory capacity.

## 04-FIRST AID MEASURES IN CASE OF CONTACT

Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Get medical attention immediately.

Wash clothing before reuse.

Thoroughly clean shoes before reuse.

## IF SWALLOWED

Do NOT induce vomiting

Give water to drink.

Get medical attention immediately.

**NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.**

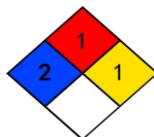
## IF INHALED

Remove to fresh air.

If breathing is difficult, get medical attention

## 05- FIRE FIGHTING MEASURES

### NFPA Hazard Rate



### Fire and Explosive Properties

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Auto-Ignition Temperature

NE

Flash Point

NE Flash Point Method

Flammable Limits- Upper

NE

Lower

NE

### Extinguishing Media

Use water spray, carbon dioxide, foam or dry chemical.

### Fire Fighting Instructions

Contain run-off from fire. Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

### Fire and Explosion Hazards

When burned, the following hazardous products of combustion can occur:

Carbon monoxide

Carbon dioxide

## 06-ACCIDENTAL RELEASE MEASURES

### In Case of Spill or Leak

Stop the leak, if possible. Ventilate the space involved. Contain, sweep up, place in container for disposal.

Shut off or remove all ignition sources. Prevent waterway contamination. Construct a dike to prevent spreading. Collect run-off and transfer to drums or tanks for later disposal. Consult a regulatory



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specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Clean up procedures: Transfer to containers in preparation for later disposal. Avoid generation of vapors.

Place in non-sparking containers for recovery or disposal. Remove from spill location. Decontaminate area.

## 07-HANDLING & STORAGE

### Handling

Do not get in eyes, on skin or on clothing.

Avoid breathing dust.

Keep container closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

### Storage

**DO NOT CUT OR WELD ON OR NEAR THIS CONTAINER.**

This material is not hazardous under normal storage conditions; however, material should be stored in closed containers, in a secure area to prevent container damage and subsequent spillage.

## 08-EXPOSURE CONTROLS & PERSONAL PROTECTION

### Engineering Controls

Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation if necessary to control exposure levels below airborne exposure limits (see below). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

### Eye / Face Protection

Where there is potential for eye contact, wear a face shield, chemical goggles, and have eye flushing equipment immediately available.

### Skin Protection

Wear appropriate chemical resistant protective clothing and protective gloves to prevent contact. Consult glove manufacturer to determine appropriate type glove material for given application. Rinse immediately if skin is contaminated.

Wash contaminated clothing and clean protective equipment before reuse.

Provide a safety shower at any location where skin contact can occur. Wash skin thoroughly after handling.

### Respiratory Protection

Avoid breathing dust. Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for



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significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134..

## Airborne Exposure Guidelines for Ingredients

Exposure Limit	Value
<b>Acetic acid</b>	
ACGIH STEL	15 ppm (37 mg/m <sup>3</sup> )
ACGIH TWA	10 ppm (25 mg/m <sup>3</sup> )
OSHA TWA PEL	10 ppm (25 mg/m <sup>3</sup> )
<b>Antimony oxide</b>	
ACGIH TWA	-Antimony compounds, as Sb 0.5 mg/m <sup>3</sup>
OSHA TWA PEL	-Antimony compounds, as Sb 0.5 mg/m <sup>3</sup>
<b>Antimony triacetate</b>	
ACGIH TWA	-Antimony compounds, as Sb 0.5 mg/m <sup>3</sup>
OSHA TWA PEL	-Antimony compounds, as Sb 0.5 mg/m <sup>3</sup>

-Only those components with exposure limits are printed in this section.

-Skin contact limits designated with a "Y" above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required.

-ACGIH Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic reactions.

-WEEL-AIHA Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic skin reactions.

## 9-PHYSICAL & CHEMICAL DATA

Appearance/Odor	Whitish wet crystals with a strong vinegar odor.
pH	NE
Specific Gravity	1.22
Vapor Pressure	NE
Vapor Density	NE
Melting Point	NE
Freezing Point	NE
Boiling Point	NE
Solubility In Water	Decomposes
Solubility in Other Materials	NE
Particle Size	NE
Percent Volatile	<2
Molecular Weight	NE
n-Octanol/Water Partition Coefficient	NE
Oil/Water Partition Coefficient	NE

## 10-STABILITY & REACTIVITY

<b>Stability</b>	This material is chemically unstable and should only be handled under specified conditions.
<b>Hazardous Polymerization</b>	Does not occur.
<b>Incompatibility</b>	Avoid contact with water or moisture.
<b>Hazardous Decomposition Products</b>	Antimony trioxide and acetic acid.



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## 11-TOXICOLOGICAL INFORMATION

### Toxicological Information

Data on this material and/or its components are summarized below. Single exposure (acute) studies indicate:  
Oral - Slightly Toxic to Rats (LD50 1,240 mg/kg)  
Dermal - No More than Slightly Toxic to Rats and Rabbits (LD50 >2,000 mg/kg)  
Eye Irritation - Corrosive to Rabbits  
Skin Irritation - Corrosive to Rabbits (1-hr exposure).  
Genetic changes were observed in tests using animal cells.

## 12-ECOLOGICAL INFORMATION

### Ecotoxicological Information

#### Antimony and Antimony Compounds

Data on this material and/or its components are summarized below. Antimony compounds are moderately toxic to practically non-toxic to *Daphnia magna* (48-hr EC50 9-530 mg/l), no more than moderately toxic to sheepshead minnow (96-hr EC50 >6.2 mg/l) and mysid shrimp (96-hr EC50 >4.2 mg/l), and slightly toxic to fathead minnow (48-hr EC50 21.9 mg/l). Embryo-larval bioassays with fathead minnows produced chronic values of >7.5 mg/l to >1600 mg/l. The 7-day LC50 for rainbow trout eggs was 0.58 ppm, and the 28-day LC50 was 11.3 ppm for goldfish and 0.3 ppm for toads. Northern squawfish, steelhead, chinook salmon, and coho salmon were exposed to 10 ppm in a flow-through system and no mortality was seen. No mortality was found when rainbow trout and bluegill sunfish fingerlings were exposed to 5 ppm under static conditions for 24-hrs. Low potential to bioaccumulate was observed in a 28-day study in bluegill sunfish.

### Chemical Fate Information

No data are available.

## 13-DISPOSAL CONSIDERATIONS

### Waste Disposal

Incineration is the recommended method for disposal observing all local, state and federal regulations.

## 14-TRANSPORT INFORMATION

Name	Environmentally hazardous substance, Solid, N.O.S
Technical Name	(antimony triacetate)
Hazard Class	9
UN Number	UN3077
Packing Group	PGIII
RQ	5000 lbs. (Acetic Acid)

## 15-REGULATORY INFORMATION

### Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370)

Immediate (Acute) Health	Y
Fire	Y
Delayed (Chronic) Health	N
Reactive	Y



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Sudden Release of Pressure N

## TSCA Memo for Product

Antimony triacetate and Antimony oxide are regulated under EPCRA (SARA Title III) Section 313 Toxic Chemical (Reporting Form R Instructions for 2000) as members of the generic class of Antimony Compounds. The components of this product are all on the TSCA Inventory list.

## Ingredient Related Regulatory Information:

<b>SARA Reportable Quantities</b>	<u>CERCLA RQ</u>	<u>SARA TPQ</u>
Acetic acid	5000 LBS	
Antimony oxide	1000 LBS	
Antimony triacetate	5000 LBS	NE

## 16-OTHER

Key words NE= Not Established  
NA= Not Applicable  
(R) = Registered Trademark

S-21 is a registered trademark of Matrix.

## Miscellaneous

Antimony triacetate and Antimony oxide are regulated under EPCRA (SARA Title III) Section 313 Toxic Chemical (Reporting Form R Instructions for 2000) as members of the generic class of Antimony Compounds.

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