

# SAFETY DATA SHEET

Creation Date 14-Apr-2008

Revision Date 19-Dec-2025

Revision Number 8

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

## 1. Identification

**Product Name** Palladium on calcium carbonate, poisoned with 3.5% lead

**Cat No. :** AC195070000; AC195070100; AC195070500

**CAS No** 7440-05-3  
**Synonyms** Lindlar Catalyst.

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Food, drug, pesticide or biocidal product use.

### Details of the supplier of the safety data sheet

#### Company

Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

#### **Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

## 2. Hazard(s) identification

### Classification

This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

Carcinogenicity	Category 1B
Reproductive Toxicity	Category 1A
Effects on or via lactation	
Specific target organ toxicity - (repeated exposure)	Category 2

### Label Elements

**Signal Word**  
Danger

**Hazard Statements**  
May cause cancer

May damage fertility. May damage the unborn child  
May cause harm to breast-fed children  
May cause damage to organs through prolonged or repeated exposure



### **Precautionary Statements**

#### **Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Do not breathe dust/fume/gas/mist/vapors/spray  
Avoid contact during pregnancy and while nursing  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Wear protective gloves/protective clothing/eye protection/face protection

#### **Response**

IF exposed or concerned: Get medical attention/advice

#### **Storage**

Store locked up

#### **Disposal**

Dispose of contents/container to an approved waste disposal plant

#### **Hazards not otherwise classified (HNOC)**

Toxic to aquatic life with long lasting effects

#### **Hazards classified under paragraph (d)(1)(ii) of 1910.1200**

No information available

WARNING. Cancer and Reproductive Harm - <https://www.p65warnings.ca.gov/>.

## **3. Composition/information on Ingredients**

<b>Component</b>	<b>CAS No</b>	<b>Weight %</b>
Calcium carbonate	471-34-1	91.5
Palladium	7440-05-3	5
Lead	7439-92-1	3.5

## **4. First-aid measures**

### **General Advice**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

### **Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

### **Skin Contact**

Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

### **Inhalation**

Remove to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

<b>Ingestion</b>	Do NOT induce vomiting. Call a physician or poison control center immediately.
<b>Most important symptoms and effects</b>	None reasonably foreseeable.
<b>Notes to Physician</b>	Treat symptomatically

## 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Water spray. Carbon dioxide (CO <sub>2</sub> ). Dry chemical.
<b>Unsuitable Extinguishing Media</b>	No information available
<b>Flash Point</b>	No information available
<b>Method -</b>	No information available
<b>Autoignition Temperature</b>	Not applicable
<b>Explosion Limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available

**Specific Hazards Arising from the Chemical**  
Explosive properties.

**Hazardous Combustion Products**  
Lead. lead oxides.

### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

### NFPA

<b>Health</b>	<b>Flammability</b>	<b>Instability</b>	<b>Physical hazards</b>
3	0	0	N/A

## 6. Accidental release measures

<b>Personal Precautions</b>	Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.
<b>Environmental Precautions</b>	Do not flush into surface water or sanitary sewer system. Should not be released into the environment. Do not allow material to contaminate ground water system.
<b>Methods for Containment and Clean Up</b>	Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

## 7. Handling and Storage

<b>Handling</b>	Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Avoid dust formation. Use only under a chemical fume hood. Do not breathe (dust, vapor, mist, gas). Do not ingest. If swallowed then seek immediate medical assistance.
<b>Storage.</b>	Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Protect from direct sunlight. Incompatible Materials. Acids. Alcohols.

## 8. Exposure controls / personal protection

### Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH	Mexico OEL (TWA)
Calcium carbonate			REL = 10 mg/m <sup>3</sup> (TWA) REL = 5 mg/m <sup>3</sup> (TWA)	
Lead	TWA: 0.05 mg/m <sup>3</sup>	TWA: 50 µg/m <sup>3</sup>	IDLH: 100 mg/m <sup>3</sup> REL = 0.050 mg/m <sup>3</sup> (TWA)	TWA: 0.05 mg/m <sup>3</sup>

### Legend

ACGIH - American Conference of Governmental Industrial Hygienists  
 OSHA - Occupational Safety and Health Administration  
 NIOSH: NIOSH - National Institute for Occupational Safety and Health

### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal Protective Equipment

#### Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

#### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

#### Respiratory Protection

No protective equipment is needed under normal use conditions.

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

### Appearance

#### Physical State

Powder Solid

#### Color

Dark grey

#### Odor

Odorless

#### Odor Threshold

No information available

#### Property

##### Values

##### Remarks

##### • Method

#### Melting Point/Range

No data available

#### Softening Point

No data available

#### Boiling Point/Range

No information available

#### Flash Point

No information available

**Method -** No information available  
Solid

#### Flammability (liquid)

Not applicable

#### Flammability (solid,gas)

No information available

#### Explosion Limits

No data available

#### Autoignition Temperature

Not applicable

#### Decomposition Temperature

> 600°C

#### pH

No information available

#### Viscosity

Not applicable

Solid

#### Water Solubility

Insoluble

#### Solubility in other solvents

No information available

#### Partition Coefficient (n-octanol/water)

No information available

#### Vapor Pressure

No information available

#### Density / Specific Gravity

No data available

#### Bulk Density

No data available

#### Vapor Density

Not applicable

Solid

#### Particle characteristics

No data available

**Other Information**

Molecular Formula Pd  
Molecular Weight 106.42  
Evaporation Rate Not applicable - Solid

## 10. Stability and reactivity

**Reactive Hazard** None known, based on information available

**Stability** Stable under normal conditions.

**Conditions to Avoid** Incompatible products.

**Incompatible Materials** Acids, Alcohols

**Hazardous Decomposition Products** Lead, lead oxides

**Hazardous Polymerization** Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

**Information on expected route of exposure**

**Inhalation** Avoid breathing dust or spray mist. May be harmful if inhaled.  
**Ingestion** May be harmful if swallowed.  
**Eyes** Avoid contact with eyes.  
**Skin** Avoid contact with skin.

**Toxicology data for the components**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Calcium carbonate	LD50 = 6450 mg/kg ( Rat )	> 2000 mg/kg (Rat) (OECD Guideline 402)	> 3 mg/L 4h (Rat) (OECD Guideline 403)

**Toxicologically Synergistic Products** No information available

**(b) skin corrosion/irritation;** No data available

**(c) serious eye damage/irritation;** No data available

**(d) respiratory or skin sensitization;**

**Respiratory** No data available  
**Skin** No data available

Component	Test method	Test species	Study result
Calcium carbonate 471-34-1 ( 91.5 )	OECD Test Guideline 429 Local Lymph Node Assay	mouse	non-sensitising

No information available

**(e) germ cell mutagenicity;** No data available

Component	Test method	Test species	Study result
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Calcium carbonate 471-34-1 ( 91.5 )	Bacterial Reverse Mutation Test OECD Test Guideline 471	in vitro	negative
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**(f) carcinogenicity;**

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Calcium carbonate	471-34-1	Not listed	Not listed	Not listed	Not listed	Not listed
Palladium	7440-05-3	Not listed	Not listed	Not listed	Not listed	Not listed
Lead	7439-92-1	Group 2A	Reasonably Anticipated	A3	X	A3

*IARC (International Agency for Research on Cancer)*

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*Group 1 - Carcinogenic to Humans*

*Group 2A - Probably Carcinogenic to Humans*

*Group 2B - Possibly Carcinogenic to Humans*

*NTP: (National Toxicity Program)*

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*Known - Known Carcinogen*

*Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen*

*ACGIH: (American Conference of Governmental Industrial Hygienists)*

*A1 - Known Human Carcinogen*

*A2 - Suspected Human Carcinogen*

*A3 - Animal Carcinogen*

*ACGIH: (American Conference of Governmental Industrial Hygienists)*

*Mexico - Occupational Exposure Limits - Carcinogens*

*Mexico - Occupational Exposure Limits - Carcinogens*

*A1 - Confirmed Human Carcinogen*

*A2 - Suspected Human Carcinogen*

*A3 - Confirmed Animal Carcinogen*

*A4 - Not Classifiable as a Human Carcinogen*

*A5 - Not Suspected as a Human Carcinogen*

**(g) reproductive toxicity;**

Category 1A

**Teratogenicity**

Teratogenic effects have occurred in experimental animals.

**(h) STOT-single exposure;**

No data available

**(i) STOT-repeated exposure;**

Category 2

**Target Organs**

Central nervous system (CNS), Blood, Kidney.

**(j) aspiration hazard;**

Not applicable  
Solid

**Other Adverse Effects**

The toxicological properties have not been fully investigated.

**Symptoms / effects,both acute and delayed** No information available.

**Other Adverse Effects**

The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties**

This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

**Ecotoxicity**

The product contains following substances which are hazardous for the environment. Contains a substance which is: Very toxic to aquatic organisms. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water

system.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Calcium carbonate	Not listed	LC50 > 56 mg/L/96h	Not listed	Not listed
Lead	Not listed	LC50: = 1.32 mg/L, 96h static (Oncorhynchus mykiss) LC50: = 1.17 mg/L, 96h flow-through (Oncorhynchus mykiss) LC50: = 0.44 mg/L, 96h semi-static (Cyprinus carpio)	Not listed	EC50: = 600 µg/L, 48h (water flea)

**Persistence and Degradability** Insoluble in water May persist

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Is not likely mobile in the environment due its low water solubility.

### 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### 14. Transport information

#### DOT

UN-No UN3077  
**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
**Technical Shipping Name** Palladium on calcium carbonate, poisoned with 3.5% lead  
**Hazard Class** 9  
**Packing Group** III

#### TDG

UN-No UN3077  
**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
**Technical Shipping Name** Palladium on calcium carbonate, poisoned with 3.5% lead  
**Hazard Class** 9  
**Packing Group** III

#### IATA

UN-No UN3077  
**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
**Technical Shipping Name** Palladium on calcium carbonate, poisoned with 3.5% lead  
**Hazard Class** 9  
**Packing Group** III

#### IMDG/IMO

UN-No UN3077  
**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
**Technical Shipping Name** Palladium on calcium carbonate, poisoned with 3.5% lead  
**Hazard Class** 9  
**Packing Group** III

### 15. Regulatory Information

#### United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Calcium carbonate	471-34-1	X	ACTIVE	-
Palladium	7440-05-3	X	ACTIVE	-
Lead	7439-92-1	X	ACTIVE	-

**Legend:**

**TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)**

Not applicable

**TSCA 12(b)** - Notices of Export

Not applicable

Component	CAS No	TSCA 12(b) - Notices of Export
Lead	7439-92-1	Section 6

**International Inventories**

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Calcium carbonate	471-34-1	X	-	207-439-9	X	X	X	X	X	KE-04487
Palladium	7440-05-3	X	-	231-115-6	X	X		X	X	KE-27744
Lead	7439-92-1	X	-	231-100-4	X	X		X	X	KE-21887

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Note that PBT chemicals are not eligible for the de minimis exemption. For these chemicals, supplier notification limits are provided.

> 0 % = no low concentration cut-off set, supplier notification limit applies.

Component	CAS No	Weight %	SARA 313 - Threshold Values %	SARA 313 - Reporting thresholds
Lead	7439-92-1	3.5	> 0 %	RT = 100 lb

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Lead	-	-	X	X

**Clean Air Act**

**OSHA** - Occupational Safety and Health Administration

Not applicable

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Lead	30 µg/m³ Action Level 50 µg/m³ TWA	-

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

Component	Hazardous Substances RQs	CERCLA Extremely Hazardous Substances RQs	SARA Reportable Quantity (RQ)
Lead	10 lb	-	10 lb 4.54 kg

**California Proposition 65** This product contains the following Proposition 65 chemicals.

Component	CAS No	California Prop. 65	Prop 65 NSRL	Category
Lead	7439-92-1	Carcinogen Developmental Female Reproductive Male Reproductive	15 µg/day	Developmental Carcinogen

**U.S. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Lead	X	X	X	X	X

**U.S. Department of Transportation**

Reportable Quantity (RQ): Y  
DOT Marine Pollutant N  
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

**Authorisation/Restrictions according to EU REACH**

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Calcium carbonate	471-34-1	-	Use restricted. See entry 75. (see link for restriction details)	-
Palladium	7440-05-3	-	-	-
Lead	7439-92-1	-	Use restricted. See entry 72. (see link for restriction details) Use restricted. See entry 30. (see link for restriction details) Use restricted. See entry 63. (see link for restriction details) Use restricted. See entry 75. (see link for restriction details)	SVHC Candidate list - 231-100-4 - Toxic for reproduction (Article 57c)

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in

scientific research and development which includes routine analytics or use as intermediate.

**REACH links**

<https://echa.europa.eu/authorisation-list>

<https://echa.europa.eu/substances-restricted-under-reach>

<https://echa.europa.eu/candidate-list-table>

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Calcium carbonate	471-34-1	Listed	Not applicable	Not applicable	Not applicable
Palladium	7440-05-3	Not applicable	Not applicable	Not applicable	Not applicable
Lead	7439-92-1	Listed	Not applicable	Not applicable	0.1% (Max. Conc.)

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**

Not applicable

**Other International Regulations**

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Calcium carbonate	471-34-1	Not applicable	Not applicable	Not applicable	Not applicable
Palladium	7440-05-3	Not applicable	Not applicable	Not applicable	Not applicable
Lead	7439-92-1	Not applicable	Not applicable	Not applicable	Annex I - Y31

## 16. Other Information

**Prepared By**

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**Revision Summary**

Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024.

**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

**End of SDS**