

PALLADIUM

Version Revision Date: SDS Number: This version replaces all previous versions. 2.1 04/04/2023 S1375741195

SECTION 1. IDENTIFICATION

Product name : PALLADIUM Design code. : A9219B

Product Registration number : 100-1328

Manufacturer or supplier's details

Company name of supplier : Syngenta Crop Protection, LLC

Address : Post Office Box 18300 Greensboro NC 27419

United States of America (USA)

Telephone : 1 800 334 9481

Telefax : 1 336 632 2192

E-mail address : sds.requests@syngenta.com

Emergency telephone : 1 800 888 8372

Recommended use of the chemical and restrictions on use

Recommended use : Fungicide

Restrictions on use : General Use Pesticide

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Combustible dust

Skin sensitization : Category 1

GHS label elements

Hazard pictograms



Signal Word : Warning

Hazard Statements : May form combustible dust concentrations in air.

H317 May cause an allergic skin reaction.

Precautionary Statements : Prevention:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P272 Contaminated work clothing must not be allowed out of

the workplace.

P280 Wear protective gloves.

Response:



PALLADIUM Version **Revision Date:** This version replaces all previous versions. SDS Number: 2.1 04/04/2023 S1375741195

> P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P333 + P313 If skin irritation or rash occurs: Get medical advice/

attention.

P363 Wash contaminated clothing before reuse.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

May form combustible dust concentrations in air.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
cyprodinil	121552-61-2	37.5
fludioxonil	131341-86-1	25
silica	61790-53-2	>= 10 - < 20
reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda	Not Assigned	>= 1 - < 5

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice Have the product container, label or Safety Data Sheet with

you when calling the emergency number, a poison control

center or physician, or going for treatment.

If inhaled Take the victim into fresh air.

If breathing is irregular or stopped, administer artificial

respiration.

Keep patient warm and at rest.

Call a physician or poison control center immediately.

In case of skin contact Take off all contaminated clothing immediately.

Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

Rinse immediately with plenty of water, also under the eyelids, In case of eye contact

> for at least 15 minutes. Remove contact lenses.

Immediate medical attention is required.

If swallowed If swallowed, seek medical advice immediately and show this

container or label.

Nonspecific

Do NOT induce vomiting.

Most important symptoms

and effects, both acute and

delayed

No symptoms known or expected.

There is no specific antidote available. Notes to physician

Treat symptomatically.



PALLADIUM

Version Revision Date: SDS Number: This version replaces all previous versions. 2.1 04/04/2023 S1375741195

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Extinguishing media - small fires

Use water spray, alcohol-resistant foam, dry chemical or

carbon dioxide.

Extinguishing media - large fires

Alcohol-resistant foam

or

Water spray

Unsuitable extinguishing

media

: Do not use a solid water stream as it may scatter and spread

fire.

Specific hazards during fire

fighting

: Fire will spread by burning with a visible flame.

As the product contains combustible organic ingredients, fire

will produce dense black smoke containing hazardous

products of combustion (see section 10).

Exposure to decomposition products may be a hazard to

health.

Further information : Do not allow run-off from fire fighting to enter drains or water

courses.

Cool closed containers exposed to fire with water spray.

Special protective equipment:

for fire-fighters

Wear full protective clothing and self-contained breathing

apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emer-

gency procedures

Refer to protective measures listed in sections 7 and 8.

Avoid dust formation.

Environmental precautions : Do not flush into surface water or sanitary sewer system.

If the product contaminates rivers and lakes or drains inform

respective authorities.

Methods and materials for containment and cleaning up

Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for

disposal according to local regulations (see section 13).

Do not create a powder cloud by using a brush or compressed

air.

Clean contaminated surface thoroughly. Clean with detergents. Avoid solvents.

Retain and dispose of contaminated wash water.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : This material is capable of forming flammable dust clouds in

air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material.

Electrical equipment should be compatible with the

flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of

flammable solvents.

This material can become readily charged in most operations.



PALLADIUM

Version Revision Date: SDS Number: This version replaces all previous versions. 2.1 04/04/2023 S1375741195

Avoid contact with skin and eyes.

When using do not eat, drink or smoke. For personal protection see section 8.

Conditions for safe storage : Keep containers tightly closed in a dry, cool and well-

ventilated place.

Keep out of the reach of children.

Keep away from food, drink and animal feedingstuffs.

Physically and chemically stable for at least 2 years when

Further information on stor-

age stability

Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient

temperatures.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
cyprodinil	121552-61-2	TWA	5 mg/m3	Syngenta
fludioxonil	131341-86-1	TWA	5 mg/m3	Syngenta
		TWA (Inhal- able particu- late matter)	1 mg/m3	ACGIH
silica	61790-53-2	TWA	6 mg/m3	OSHA P0
		TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2 (Silica)	OSHA Z-3
		TWA	6 mg/m3 (Silica)	NIOSH REL

Engineering measures

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THE PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use.

Maintain air concentrations below occupational exposure standards.

Where necessary, seek additional occupational hygiene advice.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally

required.

When workers are facing concentrations above the exposure

limit they must use appropriate certified respirators.

Hand protection



PALLADIUM

Version Revision Date: SDS Number: This version replaces all previous versions. 2.1 04/04/2023 S1375741195

Remarks : Wear protective gloves. The choice of an appropriate glove

does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The break through time depends amongst other things from the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of

degradation or chemical breakthrough.

Eye protection : No special protective equipment required.

Skin and body protection : Choose body protection in relation to its type, to the

concentration and amount of dangerous substances, and to

the specific work-place.

Remove and wash contaminated clothing before re-use.

Wear as appropriate:

Dust impervious protective suit

Protective measures : The use of technical measures should always have priority

over the use of personal protective equipment.

When selecting personal protective equipment, seek

appropriate professional advice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : granules

Color : gray to brown

Odor : weak

Odor Threshold : No data available

pH : 9.6

Concentration: 1 %w/v

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : No data available

Evaporation rate : No data available

Flammability (solid, gas) : May form combustible dust concentrations in air.

Burning number : $5 (68 \degree F / 20 \degree C)$

6 (212 °F / 100 °C)

Upper explosion limit / Upper

flammability limit

No data available



PALLADIUM

Version 2.1

Revision Date: 04/04/2023

SDS Number: S1375741195

This version replaces all previous versions.

Lower explosion limit / Lower

flammability limit

: No data available

Vapor pressure : No data available

Relative vapor density : No data available

Density : 1 g/cm3

Bulk density : 0.537 g/cm3

Solubility(ies)

Water solubility : No data available

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Self-heating substances : The substance or mixture is not classified as self heating.

Minimum ignition energy : 30 - 100 mJ

Particle size : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : None reasonably foreseeable.
Chemical stability : Stable under normal conditions.

Possibility of hazardous reac-

tions

No dangerous reaction known under conditions of normal use.

Conditions to avoid : No decomposition if used as directed.

Incompatible materials : None known.

Hazardous decomposition :

raducto

No hazardous decomposition products are known.

products

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Ingestion Inhalation Skin contact Eye contact



PALLADIUM

Version Revision Date: SDS Number: This version replaces all previous versions. 2.1 04/04/2023 S1375741195

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.51 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

Components:

cyprodinil:

Acute oral toxicity : LD50 (Rat, female): 2,500 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 1.2 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

fludioxonil:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.6 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda:

Acute oral toxicity : LD50 (Rat): 1,800 mg/kg

Acute inhalation toxicity : LC50 (Rat): 4.08 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): 3,000 mg/kg



PALLADIUM

Version Revision Date: SDS Number: This version replaces all previous versions. 2.1 04/04/2023 S1375741195

Skin corrosion/irritation

Product:

Species : Rabbit

Result : No skin irritation

Components:

cyprodinil:

Species : Rabbit

Result : No skin irritation

fludioxonil:

Species : Rabbit

Result : No skin irritation

Serious eye damage/eye irritation

Product:

Species : Rabbit

Result : No eye irritation

Components:

cyprodinil:

Species : Rabbit

Result : No eye irritation

fludioxonil:

Species : Rabbit

Result : No eye irritation

reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda:

Species : Rabbit

Result : Risk of serious damage to eyes.

Respiratory or skin sensitization

Product:

Species : Guinea pig

Result : May cause sensitization by skin contact.

Components:

cyprodinil:

Species : Guinea pig

Result : The product is a skin sensitizer, sub-category 1B.

fludioxonil:

Species : Guinea pig



PALLADIUM

Version Revision Date: SDS Number: This version replaces all previous versions. 2.1 04/04/2023 S1375741195

Result : Did not cause sensitization on laboratory animals.

Germ cell mutagenicity

Components:

cyprodinil:

Germ cell mutagenicity -

Assessment

Animal testing did not show any mutagenic effects.

fludioxonil:

Germ cell mutagenicity -

Assessment

Animal testing did not show any mutagenic effects.

reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda:

Germ cell mutagenicity -

Assessment

: In vitro tests did not show mutagenic effects

Carcinogenicity

Components:

cyprodinil:

Carcinogenicity - Assess-

ment

No evidence of carcinogenicity in animal studies.

fludioxonil:

Carcinogenicity - Assess-

ment

No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Components:

cyprodinil:

Reproductive toxicity - As-

sessment

No toxicity to reproduction

fludioxonil:

Reproductive toxicity - As-

sessment

No toxicity to reproduction

STOT-single exposure

Components:

reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda:

Assessment : The substance or mixture is classified as specific target organ

toxicant, single exposure, category 3 with respiratory tract

irritation.

STOT-repeated exposure

Components:

cyprodinil:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.



PALLADIUM

Version 2.1 Revision Date: 04/04/2023

SDS Number: S1375741195

This version replaces all previous versions.

fludioxonil:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 3.1 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.14 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

ErC50 (Desmodesmus subspicatus (green algae)): 1.6 mg/l

Exposure time: 72 h

NOEC (Desmodesmus subspicatus (green algae)): 0.1 mg/l

End point: Growth rate Exposure time: 72 h

Toxicity to fish (Chronic tox-

icity)

NOEC (Oncorhynchus mykiss (rainbow trout)): 0.32 mg/l

Exposure time: 21 d

Test Type: flow-through test

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 0.01 mg/l

Exposure time: 22 d

Components:

cyprodinil:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2.41 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.033 mg/l

Exposure time: 48 h

LC50 (Americamysis): 0.0081 mg/l

Exposure time: 96 h

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)): 5.2

mg/l

Exposure time: 72 h

NOEC (Raphidocelis subcapitata (freshwater green alga)): 0.4

mg/l

End point: Growth rate Exposure time: 72 h

EC50 (Skeletonema costatum (marine diatom)): 1.78 mg/l

Exposure time: 72 h



PALLADIUM

Version Revision 2.1 04/04/2

Revision Date: SDS Number: 04/04/2023 S1375741195

This version replaces all previous versions.

NOEC (Skeletonema costatum (marine diatom)): 0.541 mg/l

Exposure time: 72 h

M-Factor (Acute aquatic tox-

icity)

Toxicity to fish (Chronic tox-

icity)

100

NOEC (Cyprinodon variegatus (sheepshead minnow)): 0.0406

mg/l

Exposure time: 34 d

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 0.0082 mg/l

Exposure time: 21 d

NOEC (Americamysis): 0.0019 mg/l

Exposure time: 28 d

M-Factor (Chronic aquatic

toxicity)

10

fludioxonil:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.23 mg/l

Exposure time: 96 h

LC50 (Pimephales promelas (fathead minnow)): 0.7 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.4 mg/l

Exposure time: 48 h

EC50 (Americamysis): 0.27 mg/l

Exposure time: 96 h

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)):

0.259 mg/l

Exposure time: 96 h

EC10 (Raphidocelis subcapitata (freshwater green alga)):

0.077 mg/l

End point: Growth rate Exposure time: 96 h

ErC50 (Skeletonema costatum (marine diatom)): 0.43 mg/l

Exposure time: 96 h

NOEC (Skeletonema costatum (marine diatom)): 0.14 mg/l

End point: Growth rate Exposure time: 96 h

Toxicity to fish (Chronic tox-

icity)

NOEC (Oncorhynchus mykiss (rainbow trout)): 0.04 mg/l

Exposure time: 28 d

EC10 (Pimephales promelas (fathead minnow)): 0.018 mg/l

Exposure time: 116 d

Toxicity to daphnia and other aquatic invertebrates (Chron-

NOEC (Daphnia magna (Water flea)): 0.035 mg/l

Exposure time: 21 d



PALLADIUM

Version Revision Date: SDS Number: This version replaces all previous versions. 2.1 04/04/2023 S1375741195

ic toxicity)

NOEC (Americamysis): 0.018 mg/l

Exposure time: 28 d

Toxicity to microorganisms : EC50 (activated sludge): > 1,000 mg/l

Exposure time: 3 h

reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Remarks: Information given is based on data obtained from

similar substances.

Toxicity to algae/aquatic

plants

EC50 (Raphidocelis subcapitata (freshwater green alga)): >

200 mg/l

Exposure time: 72 h

Remarks: Information given is based on data obtained from

similar substances.

Persistence and degradability

Components:

cyprodinil:

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 141 d

Remarks: Product is not persistent.

fludioxonil:

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 450 - 700 d

Remarks: Persistent in water.

silica:

Biodegradability : Result: Not readily biodegradable.

reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda:

Biodegradability : Result: Readily biodegradable.

Remarks: Information given is based on data obtained from

similar substances.

Bioaccumulative potential

Components:

cyprodinil:

Bioaccumulation : Remarks: Does not bioaccumulate.



PALLADIUM

Version Revision Date: 2.1 04/04/2023

SDS Number: S1375741195

This version replaces all previous versions.

Partition coefficient: n-

octanol/water

: log Pow: 4.0 (77 °F / 25 °C)

fludioxonil:

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n-

octanol/water

log Pow: 4.12 (77 °F / 25 °C)

Mobility in soil

Components:

cyprodinil:

Distribution among environ-

mental compartments

Remarks: Cyprodinil has low to slight mobility in soil.

Stability in soil

Dissipation time: 49 d

Percentage dissipation: 50 % (DT50) Remarks: Product is not persistent.

fludioxonil:

Distribution among environ-

mental compartments

Remarks: immobile

Stability in soil

Dissipation time: 14 d

Percentage dissipation: 50 % (DT50) Remarks: Product is not persistent.

Other adverse effects

Components:

cyprodinil:

Results of PBT and vPvB

assessment

: This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be

very persistent and very bioaccumulating (vPvB).

fludioxonil:

Results of PBT and vPvB

assessment

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be

very persistent and very bioaccumulating (vPvB).

silica:

Results of PBT and vPvB

assessment

: This substance is not considered to be persistent, bioaccumu-

lating and toxic (PBT). This substance is not considered to be

very persistent and very bioaccumulating (vPvB).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not contaminate ponds, waterways or ditches with

chemical or used container.

Do not dispose of waste into sewer.

Where possible recycling is preferred to disposal or



PALLADIUM

Version Revision Date: SDS Number: This version replaces all previous versions. 2.1 04/04/2023 S1375741195

incineration.

If recycling is not practicable, dispose of in compliance with

local regulations.

Contaminated packaging : Empty remaining contents.

Triple rinse containers.

Empty containers should be taken to an approved waste

handling site for recycling or disposal. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(CYPRODINIL, FLUDIOXONIL)

Class : 9
Packing group : III
Labels : 9

IATA-DGR

UN/ID No. : UN 3077

Proper shipping name : Environmentally hazardous substance, solid, n.o.s.

(CYPRODINIL, FLUDIOXONIL)

Class : 9 Packing group : III

Labels : Miscellaneous

Packing instruction (cargo

aircraft)

Packing instruction (passen- : 956

ger aircraft)

Environmentally hazardous : yes

IMDG-Code

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

956

(CYPRODINIL, FLUDIOXONIL)

Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

Not regulated as a dangerous good

Remarks : Shipment by ground under DOT is non-regulated; however it

may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.



PALLADIUM

Version Revision Date: SDS Number: This version replaces all previous versions. 2.1 04/04/2023 S1375741195

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label: Caution

Harmful if absorbed through skin.

Causes moderate eye irritation.

Avoid contact with skin, eyes or clothing.

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove and wash contaminated clothing before re-use.

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
toluene	108-88-3	100	100 (F005)
benzenesulfonic acid, dodecyl-,	25155-30-0	1000	
sodium salt			

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
50-00-0	Not Assigned	100	·

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Combustible dust

Respiratory or skin sensitization

SARA 313 : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

The ingredients of this product are reported in the following inventories:

TSCA : On or in compliance with the active portion of the TSCA

inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.



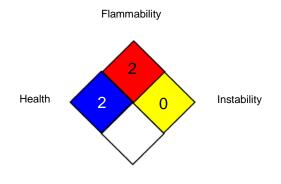
PALLADIUM

Version Revision Date: SDS Number: This version replaces all previous versions. 2.1 04/04/2023 S1375741195

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



Special hazard

HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL : USA. NIOSH Recommended Exposure Limits

OSHA PO : USA. Table Z-1-A Limits for Air Contaminants (1989 vacated

values)

OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Min-

eral Dusts

ACGIH / TWA : 8-hour, time-weighted average

NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour

workday during a 40-hour workweek

OSHA P0 / TWA : 8-hour time weighted average OSHA Z-3 / TWA : 8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer: IATA - International Air Transport Association: IBC -International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Pre-



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vention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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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.

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