

Date of issue: 26/12/2017

Safety Data Sheet

 Identification of the substance/mixture and of the company/undertaking Product identifier: Product name: Palladium(II)acetate Product code(SDS NO): 5901E-1
 Details of the supplier of the safety data sheet Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD. Address: 3-1, Honmachibashi, Chuo-ku,Osaka 540-0029,JAPAN Division: Safety Management Dept. of Chemicals Telephone number: +81-6-6946-8061 FAX: +81-6-6946-1607 e-mail address: kagakuhinanzenkanri@kishida.co.jp

2. Hazards identification

GHS classification and label elements of the product Classification of the substance or mixture Physiacal and chemical hazards Oxidizing solids: Category 3 HEALTH HAZARDS Skin corrosion/irritation: Category 2 Serious eye damage/eye irritation: Category 2 Respiratory sensitization: Category 1 Specific target organ toxicity – single exposure: Respiratory tract irritation Category 3 (Note) GHS classification without description: Not applicable/Out of classification/Not classifiable

Label elements



Signal word: Danger HAZARD STATEMENT May intensify fire; oxidizer Causes skin irritation Causes serious eye irritation May cause allergy or asthma symptoms or breathing difficulties if inhaled May cause respiratory irritation PRECAUTIONARY STATEMENT Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep/Store away from clothing/combustible materials. Take any precaution to avoid mixing with combustibles and/or other incompatible materials. Avoid breathing dust/fume/gas/mist/vapors/spray. In case of inadequate ventilation wear respiratory protection. (as specified by the manufacturer/supplier or the competent authority.) Use only outdoors or in a well-ventilated area. Wash contaminated parts thoroughly after handling. Wear protective gloves and face protection. Wear eye protection/face protection.



Response

In case of fire: Use appropriate media other than water for extinction. Call a POISON CENTER or doctor/physician if you feel unwell. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Storage

Store in a well-ventilated place. Keep container tightly closed.

Disposal

Dispose of contents/container in accordance with local/national regulation.

Physical and Chemical hazards

Oxidizing material. Organic or combustible material may catch fire in contact with it.

3. Composition/information on ingredients

Mixture/Substance selection: Substance Ingredient name:Palladium(II)acetate Content(%):98(min) Chemical formula:C4H6O4Pd Chemicals No, Japan:2-693 CAS No.:3375-31-3 MW:224.51 ECNO:222-164-4 Note : The figures shown above are not the specifications of the product.

4. First-aid measures

Descriptions of first-aid measures

General measures

Call a POISON CENTER or doctor/physician if you feel unwell.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF SWALLOWED

Rinse mouth.

Call a POISON CENTER or doctor/physician if you feel unwell.



5. Fire-fightin	
Extinguishi	ng media
Suitable	extinguishing media
Us	e appropriate extinguishing media suitable for surrounding facilities.
Specific ha	zards arising from the substance or mixture
Co	ntainers may explode when heated.
Fir	e may produce irritating, corrosive and/or toxic gases.
Advice for	firefighters
Specific	fire-fighting measures
Eva	acuate non-essential personnel to safe area.
Special	protective equipment and precautions for fire-fighters
We	ar fire/flame resistant/retardant clothing.
We	ar protective gloves/protective clothing/eye protection/face protection.
	efighters should wear self-contained breathing apparatus with full face peace operated sitive pressure mode.
	release measures
	precautions, protective equipment and emergency procedures
	ntilate area after material pick up is complete.
	ar proper protective equipment.
	nd materials for containment and cleaning up
	reep up, place in a bag and hold for waste disposal.
Preventive	measures for secondary accident
Co	llect spillage.

7. Handling and sto	rage
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Precautions for safe handling
Preventive measures
(Exposure Control for handling personnel)
Avoid breathing dust/fume/gas/mist/vapors/spray.
(Protective measures against fire and explosion)
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Keep/Store away from clothing/combustible materials.
Exhaust/ventilator
Exhaust/ventilator should be available.
Safety treatments
Avoid contact with skin.
Avoid contact with eyes.
Safety Measures/Incompatibility
Take any precaution to avoid mixing with combustibles/incompatible materials.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing or face protection.
When using do not eat, drink or smoke.
Conditions for safe storage, including any incompatibilities
Recommendation for storage
Keep container tightly closed.
Store in a cool, dry place. Do not store in direct sunlight.



8. Exposure controls/personal protection
Exposure controls
Appropriate engineering controls
Do not use in areas without adequate ventilation.
Eye wash station should be available.
Washing facilities should be available.
Individual protection measures
Respiratory protection
Wear respiratory protection.
Hand protection
Wear protective gloves.
Eye protection
Wear eye/face protection.
Safety and Health measures
Wash … thoroughly after handling.
Take off contaminated clothing and wash it before reuse.

9. Physical and Chemical Properties Information on basic physical and chemical properties Physical properties Appearance: Crystalline powder Color: Reddish brown~Yellowish brown Odor: Slightly acetic acid odor Phase change temperature Initial Boiling Point/Boiling point: 2900°C Melting point/Freezing point data N.A. Decomposition temperature data N.A. Flash point: (Palladium(II)acetate)205°C Auto-ignition temperature data N.A. Explosive properties data N.A. Vapor pressure data N.A. Vapor density data N.A. Specific gravity/Density: 1.20 n-Octanol /water partition coefficient data N.A.

10. Stability and Reactivity
 Chemical stability
 Stable under normal storage/handling conditions.
 Conditions to avoid
 Contact with incompatible materials.
 Contact with fire source.
 Incompatible materials
 Reducing agents, Metallic powder

11. Toxicological Information
Information on toxicological effects
No Acute toxicity data available
No Irritant properties data available
No Allergenic and sensitizing effects data available

No Mutagenic effects data available



No Carcinogenic effects data available No Teratogenic effects data available No reproductive toxicity data available Delayed and immediate effects and also chronic effects from short- and long-term exposure STOT STOT-single exposure [cat.3(resp. irrit.)] [Company proprietary data] (Palladium(II)acetate) Respiratory tract irritation No Aspiration hazard data available Additional data May cause lung disorders by massive inhalation of powdered substance.

-e.g. fibrosis of lung tissue, cough, sputum, breath shortness, dyspnea, decline of lung function, interstitial lung disease, pneumothorax

12. Ecological Information

Ecotoxicity

No Aquatic toxicity data available

No Persistence and degradability data available

No Bioaccumulative potential data available

No Mobility in soil data available

Ozone depleting chemical data not available

Disposal considerations
 Waste treatment methods

Dispose of contents/container in accordance with local/national regulation.

14. Transport Information UN number: 1479 UN proper shipping name: OXIDIZNG SOLID, N.O.S. Transport hazard class(es): 5.1 Packing group: III ERG GUIDE NO.: 140 Special provisions NO.: 223; 274; A3; A803

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture US major regulations TSCA Palladium(II)acetate Other regulatory information Ensure this material in compliance with federal requirements and ensure conformity to local regulations.



16. Other information

GHS classification and labelling

Ox. Sol. 3: H272 May intensify fire; oxidizer

Skin Irrit. 2: H315 Causes skin irritation

Eye Irrit. 2: H319 Causes serious eye irritation

Resp. Sens. 1: H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

STOT SE 3: H335 May cause respiratory irritation

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 19th edit., 2015 UN Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012) 2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2017 TLVs and BEIs. (ACGIH)

http://monographs.iarc.fr/ENG/Classification/index.php

Supplier's data/information

Hazard Communication Standard - 2012

General Disclaimer

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It are advised to make their own tests to determinate the safety and suitability of each such product or combination for their own purposes.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2016).