

**Safety data sheet**  
**According to Regulation n. 1907/2006 and Regulation 878/2020**  
**PT OXIDE**



Revision n. 1 of 2022.01.20

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product identifier**

Chemical name	Platinum Oxide (IV)
Product code	90
Registration number	A REACH registration number is not available for this substance as the annual product is less than one tonne.
C.A.S. Registry Number	1314-15-4
EC Number	215-223-0
Molecular weight	227.1 g/mol
Brut formula	Pt <sub>2</sub> O

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Industrial Sector	Additive for galvanic baths. Industrial use
Uses advised against	None in particular

**1.3 Details of the supplier of the safety data sheet**

Name	FAGGI ENRICO S.P.A.
Address	Via Majorana, 101/103 50019 Sesto Fiorentino FI
Telephone number	055311861
Fax number	055311791
Competent person responsible for the safety data sheet	lorenzo.magaldi@faggi.it

**1.4 Emergency telephone number** 111 - Medical helpline operating in England, in Scotland (NHS 24) and in Wales (NHS Direct Wales).


01-2120140175-66-XXXX

**2. HAZARDS IDENTIFICATION**

**2.1 Classification of the mixture according to Regulation (EC) n. 1272/2008**

Hazard class	Category codes	Hazards indications
Ox. Sol.	1	H271

**2.2 Label elements**

<b>Pictograms</b>		
<b>Signal word</b>	<b>DANGER</b>	
<b>Hazard statements</b>	H271	May cause fire or an explosion; very combustible Keep away from heat sources / sparks, open flames / heated surfaces. Not smoking
<b>Precautionary advice</b>	P210	Keep away from clothing and other combustible materials
	P220	Wear fully flame retardant clothing or flame retardant fabrics.
	P283	

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<b>2.3 Other hazards</b>	<p>P306+P360</p> <p>P371+P380+P375 P420</p>	<p>IN CASE OF CONTACT WITH CLOTHING: Rinse immediately and abundantly contaminated clothing and skin before removing clothing.</p> <p>In the event of a major fire and large quantities: Evacuate the area. Risk of explosion. Use extinguishing media from a great distance. Store separately</p> <p>It does NOT contain PBT / vPvB substances according to Regulation (EC) 1907/2006, annex XIII</p> <p>It does NOT contain substances that interfere with the endocrine system in accordance with Regulation (EC) 1907/2006 art.59 paragraph 1 and in accordance with the criteria established in Regulation (EU) 2017/2100 and Regulation (EU) 2018/605.</p>
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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substance:** Platinum Oxide

<b>CAS Number</b>	<b>1314-15-4</b>
<b>EC Number</b>	<b>215-223-0</b>
INDEX	Not available
STA	LD50 3400 mg/kg bw (rat)
M factor (acute)	Not applicable
M factor (chronic)	Not applicable

**4. FIRST AID MEASURES**

**4.1 Description of first aid measures**

Inhalation	Take to fresh air immediately. If breathing is difficult, give oxygen. Artificial respiration if necessary.
Ingestion	Wash the injured person's mouth. Do not give milk or alcoholic beverages. Call a doctor immediately.
Contact with skin	Remove contaminated clothing and wash thoroughly with plenty of water and neutral soap. Call a doctor immediately.
Contact with eyes	Rinse with plenty of running water for at least 15 minutes while keeping the eyelids open (remove contact lenses if it is easy to do so). Call a doctor immediately.

Recommendations:

- Need to see a doctor immediately

YES

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- Possibility of delayed effects following exposure NO
- Move the exposed individual from the place of exposure to the open air YES
- Remove the clothing and shoes of the exposed individual YES
- How to handle contaminated clothing With gloves
- YES

**4.2 Most important symptoms and effects, both acute and delayed**

Not known effect

**4.3 Indication of any immediate medical attention and special treatment needed**

It is necessary to seek immediate medical attention

**5. FIREFIGHTING MEASURES**

**5.1 Extinguishing media**

Suitable extinguishing media CO<sub>2</sub>, powder or water spray extinguishers

Unsuitable extinguishing media High pressure water jets

**5.2 Special hazards arising from the substance or mixture**

Although the substance or mixture is not combustible, it can cause or promote the combustion of other materials.

**5.3 Advice for firefighters**

Normal fire-fighting clothing, such as self-contained open-circuit compressed air breathing apparatus (EN137), flame retardant suit (EN469), flame retardant gloves (EN659) and firefighter boots (HOA29 or A30).

Protective measures to be taken:

Remove the containers from the fire area, if this is possible without risk, or cool them, since if the substance is exposed to thermal radiation or if it is directly involved it can give rise to toxic fumes and explosions.

Damaged containers must only be handled by authorized skilled personnel.

**6. ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

**6.1.1. For non-emergency personnel**

Evacuate contaminated area

**6.1.2. For emergency responders**

Wear protective equipment (gloves and protective anti-acid clothing and protective means for the eyes).

Provide adequate ventilation of the premises.

Whenever possible, operate upwind.

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Avoid coming into contact with the substance or handling the containers without adequate protection.

Isolate the area until the substance is completely dispersed.

**6.2 Environmental precautions**

Evacuate the dangerous area and minimize the affected area by containing the leak. Collect the material and store it in a suitable container pending disposal. Avoid the formation of dust.

**6.3 Methods and material for containment and cleaning up**

**6.3.1. Advice in order to contain a spill**

Limit the spreading with sand, bentonite or similar. Do not use sawdust or other flammable materials.

**6.3.2. Advice in order to clean-up a spill**

Wash contaminated area with water

**6.3.3 Other information**

None

**6.4 Reference to other sections**

None

**7. HANDLING AND STORAGE**

**7.1. Precautions for safe handling**

**7.1.1. Recommendations in order to manipulate the substance or the mixture in a safe manner, such as containment measures and prevention of fire and aerosol and powders formation**

Use substance only with adequate ventilation and aspiration and with emergency eye wash nearby.

**7.1.2. General recommendation on work hygiene**

Do not eat, drink and smoke in work areas. Wash your hands after use. Remove contaminated clothing and protective equipment before entering eating areas

**7.2. Conditions Safe storage, including any incompatibilities**

**7.2.1. Risk management associated with explosive atmospheres, corrosive conditions, flammability hazards, incompatible substances or mixtures, evaporative conditions, potential ignition sources**

Keep in sealed and labeled containers, separately or only with other oxidizing substances and away from sources of heat and ignition.

**7.2.2. Control of weather conditions, ambient pressure, temperature, sunlight, humidity, and vibration**

Store in a cool, well-ventilated place and away from sunlight.

**7.2.3. Conditions to maintain the integrity of the substance or mixture**

Keep in a cool and dry place

**7.2.4. Advice regarding the ventilation, specific design for storage rooms or vessels, quantity limits under storage conditions, packaging compatibilities**

The storage rooms must be ventilated and dry.

**7.3. Specific end use(s)**

Industrial use

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters**

No occupational exposure limit values are defined for this substance.

**8.2. Exposure controls**

Use only in rooms equipped with fume hoods

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**8.2.1. Appropriate engineering controls**

Use only in rooms equipped with fume hoods

**8.2.2. Individual protection measures, such as personal protective equipment**

**Eye/face protection** Protective equipment for eyes compliant with Directive 89/686 / EEC and with standard EN166: 2001

**Skin protection (hands)** Gloves compliant with EN420 E374 standards

**Skin protection (body)** Protective and antacid clothing compliant with UNI EN 13034: 2006 type 6 standards

**Respiratory protection** Mask with ABEK P3 filters or self-contained breathing apparatus

**Thermal hazards** Protective clothing compliant with UNI EN ISO 11612: 2009 A1-B1-C1-E1

**8.2.3. Environmental exposure controls**

Keep all environments where platinum oxide is used in suction, using localized collection systems and ambient air exchange. Convey the aspirated volumes to an abatement system and then into the atmosphere. Do not use recirculating air suction systems. Avoid any spill into the environment.

9.

9.1

**PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

Physical state	Solid powder
Color	Red brown
Odor	Odorless
Melting point / freezing point	450 ° C
Boiling point or initial boiling point and boiling range	Not applicable
Flammability	Not inflammable
Lower and upper explosive limits	Not explosive
Flash point	Not applicable
Self-ignition temperature	Not applicable
Decomposition temperature	It does not decompose
pH	Not applicable

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Cinematic viscosity	Not applicable
Solubility	Insoluble in water
Production coefficient n-octanol / water (logarithmic value)	Not applicable
Vapor pressure	Not applicable
Density and / or relative density	11.8 g / cm <sup>3</sup>
Relative vapor density	Not applicable
Characteristics of the particles	<100 µm: 99.4%

**9.2. Other information**

None

**10. STABILITY AND REACTIVITY**

**10.1 Reactivity**

It can cause fire or explosion; strong oxidant

**10.2 Chemical stability**

The product is stable under normal circumstances

**10.3 Possibility of hazardous reactions**

Nessuna nelle normali condizioni di utilizzo

**10.4 Conditions to avoid**

None in particular

**10.5 Incompatible materials**

Materiali infiammabili

**10.6 Hazardous decomposition products**

None

**11. TOXICOLOGICAL INFORMATION**

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Acute toxicity**

Non toxic

LD50 3 400 mg / kg bw  
(rat)

**Skin corrosion / irritation**

Not irritating

**Serious eye damage/irritation**

Not corrosive

**Respiratory or skin sensitization**

Not sensitizing to the skin.

Missing data on effects on  
the respiratory tract

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	<b>Germ cell mutagenicity</b>	Not mutagenic	
	<b>Carcinogenicity</b>	Data not available	
	<b>Reproductive toxicity</b>	Data not available	
	<b>STOT – single exposure</b>	Non toxic	
	<b>STOT – repeated exposure</b>	Data not available	
<b>11.2</b>	<b>Information on other hazards</b>		
	None		
<b>12.</b>	<b>ECOLOGICAL INFORMATION</b>		
<b>12.1</b>	<b>Toxicity</b>	Non-toxic for the environment	
<b>12.2</b>	<b>Persistence and degradability</b>	The substance is not subject to breakdown by any natural enzymatic or chemical process	
<b>12.3</b>	<b>Bioaccumulative potential</b>	Not applicable	
<b>12.4</b>	<b>Mobility in soil</b>	Data not available	
<b>12.5</b>	<b>Results of PBT and vPvB assessment</b>	Not PBT nor vPvB	
<b>12.6</b>	<b>Endocrine disrupting properties</b>	None known	
<b>12.7</b>	<b>Other adverse effects</b>	None known	
<b>13.</b>	<b>DISPOSAL CONSIDERATIONS</b>		
<b>13.1.</b>	<b>Waste treatment methods</b>		
	Dispose of both the substance and its packaging as hazardous waste and deliver them to an authorized facility.		
<b>14.</b>	<b>TRANSPORT INFORMATION</b>		
<b>14.1</b>	<b>UN number or ID number</b>	UN 1479	
<b>14.2</b>	<b>UN proper shipping name</b>	Oxidising solid, n.o.s.	
<b>14.3</b>	<b>Transport hazard class(es)</b>	5.1	
<b>14.4</b>	<b>Packing group</b>	II	
<b>14.5</b>	<b>Environmental hazards</b>	YES	
<b>14.6</b>	<b>Special precautions for user</b>	Not applicable	
<b>14.7</b>	<b>Maritime transport in bulk according to IMO instruments</b>	Not applicable	
<b>15.</b>	<b>REGULATORY INFORMATION</b>		
<b>15.1</b>	<b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>		<b>Applicability</b>
	Reg. (EC) 1907/2006 / EC Reach		YES
	Reg. (EC) 1272/2008 CLP and subsequent changes and additions		YES
	Reg. (CE) 2037/2000 "Substances that deplete the ozone layer"		NO

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Reg. (EC) 850/2004 "Persistent organic pollutants"	NO
Reg. (EC) 689/2008 "export and import of dangerous chemicals"	NO
Substance listed in Annex I of Dir. 2012/18 / EU so-called Seveso	YES
Legislative Decree 81/2008 Consolidated Law on health and safety at work	YES
Directive 2014/103 / EU "Adr"	YES
R.D. 09/01/1927 "Toxic gases"	YES

**15.2**

**Chemical safety assessment**

A chemical safety assessment was not carried out

**16.**

**OTHER INFORMATION**

**Changes compared to the previous edition**

Regulatory update

**Acronim and abbreviation legend**

ADR : Agreement concerning the International Carriage of Dangerous Goods by Road

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstract Service

**Main references and data sources**

ECHA's data bank on registered substances and soon to be registered substances:

<http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>

**Adequate training for workers in order to ensure the protection of human health and the environment**

Chemical Risk Training pursuant to Legislative Decree 81/08 Title IX dangerous substances

DPI training