



# Emmessar Technologies Limited

Regd. Office: 5-C, Sett Minar, Peddar Road, Mumbai - 400 026, India

Corp Office: 29, Kamer Building, 4<sup>th</sup> floor, 38, Cawasji Patel Street, Fort, Mumbai - 400 001

Tel: (+91-22) 66356209/10/ 11/ 66540962 Fax: 66370190 Email: [enquiries@ebnl.org](mailto:enquiries@ebnl.org); [etl@ebnl.org](mailto:etl@ebnl.org)

Web: [www.ebnl.org](http://www.ebnl.org); [www.indiamart.com/emmessartechnologies](http://www.indiamart.com/emmessartechnologies)

## Material Safety Data Sheet

According to Regulation 1907/2006/EC

Revision Date: 25.11.2014

### **Para Quinone Dioxime / p-Benzoquinone Dioxime (PQD)**

#### **SECTION 1: Identification of the substance/mixture and of the Company / undertaking**

##### **1.1 Product identifier**

Trade Name	:	<b>Para Quinone Dioxime (PQD)</b>
Substance Name	:	<b>p-Benzoquinone Dioxime</b>
CAS No.	:	<b>105-11-3</b>
EC-No.	:	<b>203-271-5</b>

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

Use of the substance/ Mixture	:	Co-agent for plastics and elastomers
----------------------------------	---	--------------------------------------

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

Company : **Emmessar Technologies Limited**  
: **5-C, Sett Minar, Peddar Road,**  
: **Mumbai, India**  
Telephone : +91-22-66356209 / 10 / 11  
Responsible/issuing person : MSR Ayyangar [msr@ebnl.org](mailto:msr@ebnl.org) / Jeyavel Nadar [bj@ebnl.org](mailto:bj@ebnl.org)

**1.4 Emergency Telephone No.:** MSR Ayyangar: +91-9223204060  
Jeyavel Nadar : +91-9594919524

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No. 1272/2008

Acute toxicity, Category 4                      H332: Harmful if inhaled  
Acute toxicity, Category 4                      H302: Harmful if swallowed  
Flammable solids, Category 2                H228: Flammable solid

#### Classification (67/548/EEC, 1999/45/EC)

Harmful    R20/22: Harmful by inhalation and if swallowed

### 2.2 Label elements

#### Labelling (REGULATION (EC) No. 1272/2008



Hazard pictogram :

Signal word : Warning

Hazard statements : H228 Flammable solid  
: H302 Harmful if swallowed  
: H332 Harmful if inhaled



Precautionary statements : **Prevention:**  
: P210 Keep away from heat/sparks/open flames /  
: hot surfaces – No smoking  
: P241 Use explosion-proof electrical / ventilating /  
: Lighting / equipment  
: P261 Avoiding breathing dust  
: P280 Wear protective gloves / protective clothing /  
: Eye protection / face protection  
: P240 Ground/bond container and receiving equipment  
:  
: **Disposal**  
: P501 Dispose of contents / container to an approved  
: waste disposal plant.

### 2.3 Other hazards

This substance is not considered to be very persistent and very bio accumulating (vPvB)

## SECTION 3: Composition/information on ingredients

Substance name : p-Benzoquinone dioxime  
CAS No. : 105-3-11  
EC-No. : 203-271-5

### Hazardous components

Chemical Name	CAS No. EC-No.	Concentration [%]
p-Benzoquinone Dioxime	105-11-3 203-271-5	<=100

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice : Take off all contaminated clothing immediately.  
: Remove victim from exposure and then have him lie down  
: in recovery position  
: Victim to lie down in the recovery position, cover and keep  
: him warm. Never give anything by mouth to an  
: unconscious person.

If inhaled : Remove to fresh air  
: Oxygen or artificial respiration if needed. Call a physician  
: immediately.



- In case of skin contact: Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- If swallowed : Clean mouth with water and drink afterwards plenty of water. DO NOT induce vomiting. Call a physician immediately.

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

Symptoms : No information available

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

Treatment : Treat symptomatically and supportively.

### **SECTION 5: Firefighting measures**

#### **5.1 Extinguishing media**

Suitable extinguishing: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide  
media  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing: High volume water jet  
Media

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

Special hazards during: Irritant, caustic, flammable, noxious/toxic gases and  
Firefighting vapours can develop in the case of fire and decomposition  
carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of  
nitrogen (NO<sub>x</sub>), dense black smoke.



### 5.3 Advice for firefighters

Special protective equipment: Wear self-contained breathing apparatus and protective suit  
For firefighters

Further information : Use water spray to cool unopened containers. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Collect contaminated fire extinguishing water separately. This must not be discharged to drains.

## SECTION 6: Accidental release measures

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

Personal precautions : Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Remove all sources of ignition. Evacuate personnel to safe areas.

6.2 **Environmental precautions:** Try to prevent the material from entering drains or water courses

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

Methods for cleaning up: Pick-up and transfer to properly labeled containers. Pick-up and arrange disposal without creating dust. Dispose of in accordance with local regulations

6.4 **Reference to other sections:** For personal protection see section 8

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling: Wear personal protective equipment. Take precautionary measures against static discharges. Keep container tightly closed and dry. Provide sufficient air exchange and / or exhaust in work rooms. Avoid contact with skin and eyes. Smoking, eating and drinking should be prohibited in the application area. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Limit the stocks at work place.

Advice on protection against: Take measures to prevent the build up of electrostatic  
Fire and explosion charge. Keep away from heat and sources of ignition.



## 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage: Keep containers tightly closed in a dry, cool and well ventilated place.  
Areas and containers :

Further information on : Keep away from heat and direct sunlight.  
Storage conditions

Advice on common storage: Impompatible with strong acids and oxidizing agents.

Storage temperature : < 40° C

7.3 Specific end use(s) : For further information, refer to the prodct technocal data sheet.

## SECTION 8: Exposure controls / personal protection

8.1 Control parameters : Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

Engineering measures: Effective exhaust ventilation system

#### Personal proteceive equipment

Eye protection : Tightly fitting safety goggles

#### Hand protection

Material : Protective gloves

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves. The choice of an appropriate gloves does not only depend on its material but also on other quality features and is different from one producer to the other. The exact breat through time can be obtained from the protective glove producer and this has to be observed. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has be measured for each case.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection : Half mask with a particle filter P2 (EN 143)



Protective measures : Keep away from food, drink and animal feedingstuffs. Wash thoroughly after handling. Avoid contact with the skin and the eyes. When using do not eat, drink or smoke. Do not breathe spray.

## SECTION 9: Physical and Chemical properties:

<ul style="list-style-type: none"><li>• <b>General Information</b></li></ul>
Form : Powder Color : grey-brown Smell : Characteristic Std Shelf Life : Minimum 12 months and maximum 36 months if stored in a cool dry place, away from direct sun light.
<ul style="list-style-type: none"><li>• <b>Change in condition</b></li><li>• <b>Melting point/Melting range</b> : Not determined</li><li>• <b>Boiling point/Boiling range</b> : Not applicable</li></ul>
<ul style="list-style-type: none"><li>• <b>Flash point</b>: 49°C (COC)</li></ul>
<ul style="list-style-type: none"><li>• <b>Ignition temperature</b> :</li></ul>
<ul style="list-style-type: none"><li>• <b>Decomposition temperature</b> : 243°C</li></ul>
<ul style="list-style-type: none"><li>• <b>Danger of explosion</b> : The product is not explosive by itself, but it may form explosive dust.</li></ul>
<ul style="list-style-type: none"><li>• <b>Density at 20°C</b> 1.49 g/cm<sup>3</sup></li><li>• <b>Solubility / Miscibility</b> : acetone</li><li>• <b>Water at 20°C</b> : &lt;0.001 g/l</li></ul>

## SECTION 10: Stability and reactivity

- 10.1 Reactivity : Hazardous polymerization does not occur
- 10.2 Chemical stability : No decomposition if stored and applied as directed
- 10.3 Possibility of hazardous reactions: Risk of dust explosion
- 10.4 Conditions to be avoided: To avoid thermal decomposition do not overheat.
- 10.5 Materials to be avoided : Strong acids or oxidants.
- 10.6 Dangerous products of decomposition : Carbon dioxide (CO<sub>2</sub>) Carbon monoxide, Nitrogen oxides (NO<sub>x</sub>)



## SECTION 11: Toxicological information

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:**

Oral LD50 679mg/kg (rat)

**On the skin :** not irritant

**On the eye :** Slightly irritant

**Additional toxicological information:**

Mutagenity : Ames Salmonella – negative

Drosophila melanogaster SLRL – negative

Feeding of 750-1500 ppm caused bladder tumors in female mice.

## SECTION 12: Ecological information:

No data available.

- **Additional ecological information:**

- **General notes:**

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Disposal must be made according to official legislations.

Contaminated packagings : Disposal must be made according to official regulations.





## SECTION 14: Transport information

### 14.1 UN number

ADR : UN 1325  
RID : UN 1325  
IMDG : UN 1325  
IATA : UN 1325

### 14.2 Proper shipping name:

ADR : FLAMMABLE SOLID, ORGANIC, N.O.C  
(p-benzoquinone dioxime)  
RID : FLAMMABLE SOLID, ORGANIC, N.O.C  
(p-benzoquinone dioxime)  
IMDG : FLAMMABLE SOLID, ORGANIC, N.O.C  
(p-benzoquinone dioxime)  
IATA : FLAMMABLE SOLID, ORGANIC, N.O.C  
(p-benzoquinone dioxime)

### 14.3 Transport hazard class

ADR : 4.1  
RID : 4.1  
IMDG : 4.1  
IATA : 4.1

### 14.4 Packing Group

#### ADR

Packing Group : III  
Classification code : F1  
Haz identification No.: 40  
Labels : 4.1  
Tunnel restriction code: (E)

#### RID

Packing Group : III  
Classification code : F1  
Haz identification No.: 40  
Labels : 4.1

#### IMDG

Packing Group : III  
Labels : 4.1  
EmS Number : F-A, S-G

#### IATA

Packing Group : III  
Labels : 4.1



Packing instruction : 449  
(Cargo aircraft)  
Packing instruction : 446  
(Passenger aircraft)  
Packing instruction : Y443  
(Passenger aircraft)

#### 14.5 Environmental hazards

**ADR** : No  
**RID** : No  
**IMGD** : No  
**IATA** : No

14.6 Special precautions for user: Not applicable

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

Not applicable for product as supplied

## SECTION 15: Regulatory information

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

Other regulations : The product is classified and labeled in accordance with EC directives or respective national laws

The components of this product are reported in the following inventories

EINECS : Notification number: 203-271-5

### 15.2 Chemical Safety Assessment:

A Chemical Safety Assessment has not been carried out



## SECTION 16: Other information:

Although the information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof, our company makes no representations as of the completeness or accuracy thereof information is supplied upon the condition that persons receiving the same will make their own determination as to safety and suitability for their purposes prior to use. In no event will our company be responsible for damages of any nature whatsoever resulting from the use of reliance upon information. No representations of warranties either expressed or implied, or merchantability, fitness for a practical purpose or of any other nature, are made hereunder with respect to information or the product to which the information refers.

- **Department issuing data specification sheet:**

Safety and Environmental protection.

- **Contact:**

MSR Ayyangar / Jeyavel Nadar: Tel.# +91-22-66356209. Fax # +91-22-66370190

E-mail : [etl@ebnl.org](mailto:etl@ebnl.org) / [enquiries@ebnl.org](mailto:enquiries@ebnl.org)