

## **Technical Data Sheet**

### **SUNNOX ODA**

**Chemical name:** p,p'- Dioctyl Diphenyl Amine

**Molecular Formula:** C<sub>28</sub> H<sub>43</sub>N

**Molecular Weight:** 393

**CAS No.:** 101-67-7

#### **TYPICAL SALES SPECIFICATIONS:**

Appearance	Off White to Light tan colour powder
Assay	90% Min
Specific Gravity	1.01 g/cm <sup>3</sup>
Melting Point	95 °C
Loss on drying	0.5% Max
Ash Content	0.05% Max
Distillation range °C @0.25 – 0.75 mmg	254-260
Solubility	Soluble in Petroleum and Synthetic Lubricant bases, Insoluble in water.

#### **APPLICATION AND USES:**

General purpose/ashless antioxidant for all types of lubricating oils at high temperatures. Especially used in hydraulic fluids, industrial oils, automatic transmission fluids and engine oils.

Used as antioxidant and corrosion inhibitor in silanes and synthetic lubricants (Fluids & Greases)

#### **PACKAGING AND STORAGE:**

Available in 25 box To be stored in a clear, cool and dry place.

Although every care has been taken in the completion of the above information & recommendation they are offered in good faith without guarantee.

## PERFORMANCE DATA

**Name : SUNNOX ODA**

### **I – Turbine Oxidation Stability Test – (ASTM D 943)**

**(In Group I - PARAFFINIC OIL , FROM INDIAN REFINARY)**

% Dosage of SUNNOX ODA	Hours to TAN of 2.0 mg KOH/gm
BASE OIL ONLY	200
0.1 % + Base Oil	400
0.5 %+ Base Oil	1000
0.8 %+ Base Oil	5500

**SUNNOX ODA** shows a significant increase in the **antioxidation properties**, over the base oil and needs to be further evaluated in different base stocks and in combination with other antioxidants for synergetic effects.

### **II – For Lubricating Greases - Oxidation Stability – (ASTM D 942) @99°C / 100 hrs**

	<b>Pressure Drop (psi)</b>	
<b>Specification</b>		
- Lithium Base Grease(Without Antioxidant) Max	14	10
- Lithium Base Grease + 0.1% SUNNOX ODA	5	

### **III - RUST PREVENTIVE CHARACTERISTICS**

#### **a. Copper Strip Corrosion Test For Lubricating Oils (ASTM D-130) @ 100°C – 3 hrs.**

	<b>Rating</b>
<b>Specification</b>	
- Base oil – (without additive) ASTM 1	2 a
- Base oil + 0.1% SUNNOX ODA	1 a

**b. Copper Strip Corrosion Test**  
**For Lubricating Greases (ASTM D4048)**  
**@ 100°C / 24 hrs.**

<b>Specification</b>	<b>Rating</b>
- Grease (without additive) ASTM 1	2 a
- Grease + 0.1% SUNNOX ODA	1 a

**c. Rust Preventive Characteristics (ASTM D-665)**  
**@ 60°C – 24 hrs**

<b>Specification</b>	
- Base oil (as such) Passes	- Passes – No corrosion
- Base oil + 0.1% SUNNOX ODA	- Passes – No corrosion

**d. For Soluble Cutting Oils**  
**Cast Iron Corrosion Test – (IS 1115)**

<b>Specification</b>		
Soluble Oil (without additive)	- Rating 1/1-1	0/1-1
Soluble Oil (with ODA – 0.1%)	- Rating 0/1-1	

SUNNOX ODA, when added in the lubricants (oils & grease) as an antioxidant, does not induce any corrosion in the ferrous and non-ferrous metals.