



APAR

Tomorrow's solutions today

POWEROIL®

Powering Ahead



POWEROIL

RUST PREVENTIVE OILS

APAR SOLUTIONS FOR METALWORKING FLUID APPLICATIONS



Most metallic parts, components and finished machines/ equipments require to be protected from rust prior to further assembly or processing. Typical examples are Automotive parts which require protection for a period of time- few days, weeks or months etc., fasteners, steel strips/ sections, drawn sections of steel, Aluminium alloys, yellow metals etc. Protective measures such as alloying, plating, painting cannot be used in such cases but requires use of petroleum based rust preventives



ABOUT RUST PREVENTIVE APPLICATIONS



ABOUT POWEROIL RUST PREVENTIVE OILS

POWEROIL Rust Preventive Oils (RPOs) contain special types of rust preventive additives with mineral base oils and or solvents that have the ability to form a thin rust protective film over the metal surface to protect from rust.

Additionally, Poweroil RPOs have excellent dewatering and demulsibility properties that can separate the coolant or water from the oil the RPO tank for long term survivability and improved rust protection.

FEATURES AND PERFORMANCE BENEFITS OF POWEROIL RUST PREVENTIVE OILS

1. Oil Based RPOs
 - a. Are mineral based products having high flash points
 - b. Leave oily film on metal components in the range of 6-10 μ thickness
 - c. Protect metal components from rust upto a maximum of 6 months
2. Solvent based RPOs
 - a. They contain around 70-80% solvent with varying flash points between 40-80°C
 - b. The film type and thickness depend on product requirement, varying from 1-6 μ thickness
 - c. Provide longer protection upto 12-15 months
3. Water Based RPOs
 - a. Are formulated with mineral oils, emulsifiers and corrosion inhibitor additives
 - b. Used as water in oil based emulsion with desired concentration depending on rust protection needs
 - c. Leave oily film on metal components in the range of 2-3 μ thickness
 - d. Generally used for short term rust protection

FEATURES AND PERFORMANCE BENEFITS OF POWEROIL RUST PREVENTIVE OILS

PRODUCT AND SERVICE FEATURES	BENEFITS
Enhanced product quality through consistent and performance based RPOs	Excellent rust protection under acid fumes, salty and humid environments, ensuring high quality end products
Regulatory compliance through proper monitoring, disposal and limitation of hazard components	Compliance with environmental regulations thereby minimizing environmental impact
Expert Support from a team of professionals possessing in-depth knowledge and expertise in providing solution to customer ends	Trouble free plant operations with high operating plant efficiencies, lower maintenance and operation costs



POWEROIL RUST PREVENTIVE OILS – SELECTION GUIDE



POWEROIL Rust Preventive Oils

Solvent Based with excellent Dewatering properties

	POWEROIL RP DW- 150	POWEROIL RP DW 150 (A)	POWEROIL RP DW 150 (C)	POWEROIL RP HP	POWEROIL RP HF	POWEROIL RP TX LV	POWEROIL RP FD 1090
Product Details	Recommended for finished Machined component and for applications wherein MWFs are in line	Recommended For finished machined components subjected to acidic vapours of pickling operations. Very good low temperature properties, hence suitable for cold climatic conditions	Recommended For finished machined components subjected to salty, humid and mild acidic fumes	Good corrosion resistance properties against salty and humid atmosphere. Recommended for export application of mild steel & cast iron components	Has high flash point, hence low consumption rates. Recommended for finished components where high odour of solvent is an issue	Multipurpose rust preventive oil with excellent protection, thixotropic properties, light-duty lubrication, high flash point, and suitable for electrostatic spray applications on precision components	High protection, odourless RP oil providing long term protection during storage and transport. Suited for export shipments
Kiin. Visc. @ 40° C, cSt	2.5	2.6	1.8	2.0	4.2	26	1.2
Flash Point, °C	40	38	40	40	93	>190	40
Salt Spray test, hrs	72	60	60	96	48	48	48
Type of film	Oil, Smoothy	Fine, Waxy	Oil, Smoothy	Fine, Waxy	Fine,Oily	Thin Oily	Oily
Film Thickness, µ	4.5-5.0	6.5-7.0	2.8-3.2	3.8-45	3.2-3.8	NA	2.5-3.0
Indoor protection, months	9-12	3-6	3-6	9-12	6-9	5-6	9-12
Outdoor protection, months	3-6	1-3	1-3	6-8	3-6	3-4	6-9

POWEROIL RUST PREVENTIVE OILS – SELECTION GUIDE



Oil Based			Water Based
	POWEROIL RP Light	POWEROIL RP HR	POWEROIL RP AQUA 3050
Product Details	For finished machined component, for short duration indoor storage	Good acid fume resistance properties. Used for HR sheets with pickling operation	Designed to dilute with water (generally around 30%) or as per directions. Highly economical option for usage
Kiin. Visc. @ 40° C, cSt	8.5	34	50
Flash Point, °C	140	150	>150
Salt Spray test, hrs	35	48	24
Type of film	Soft Oily	Oily	Oily (after evaporation)
Film Thickness, μ	4-5	6	**
Indoor protection, months	3-6	6-9	2-3
Outdoor protection, months	1-3	1-3	1-2

** Represents film thickness depends on dilution ratio with water.

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