

QUALITY PLAN

FOR THE PROCUREMENT OF RINOPOL – JET 100

(Proprietary formulation from M/s Rimini Industries India, Chennai – 600 087)

Doc No: PS: TSX: 590:00:17

Dated 02.06.2017



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)

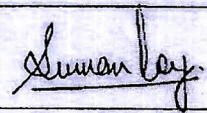
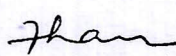
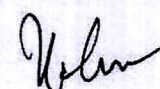
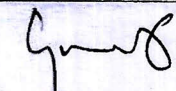
Power Sector – Southern Region

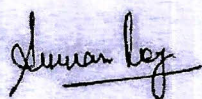
690, Anna Salai, Nandanam, Chennai – 600 035.

QUALITY PLAN

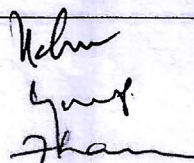
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(Proprietary formulation from M/s Rimini Industries India, Chennai – 600 087)

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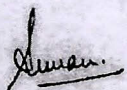
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SCOPE:

This document establishes the quality requirements for supplies purchased by BHEL. This form is a part of the purchase order. It contains **General Quality Requirements**, which apply to all purchases unless they are specifically excluded.

SECTION I: GENERAL REQUIREMENT

1. **Responsibility for Conformance** – The seller is responsible for furnishing supplies, which conform to the requirements of the purchase order. Surveillance, inspections, and tests performed by BHEL, BHEL's customer, or the government do not relieve the seller of this responsibility.
2. **Documentation** – BHEL may refuse to accept delivered items if the seller does not submit the certifications, test data, reports, and/or documentation as required in the purchase order. Computer generated documents must include an actual or facsimile signature.
3. **Design, Process, Material, or Procedure Changes** – Changes to designs, processes, materials, and/or procedures originally approved or qualified by BHEL or our customers require written approval. Approval is required before the start of the production cycle in which the changes would take place. The supplier is responsible for flow down of this requirement to all sub tier suppliers.
4. **Right of Access** – is reserved by BHEL, our customers and regulatory authorities to the applicable areas of supplier's facilities, at any level of the supply chain, involved in the order and to all applicable records. BHEL may review your facility or products as necessary.
5. **Notification of Facility Change** – Notify the BHEL immediately of changes to facility location.



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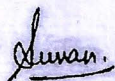
6. **Nonconformance Report (NCR)** – Nonconforming parts or material require BHEL's written approval before shipment. Record any deviations from specifications, or other requirements. Submit the NCR to the BHEL. A copy of the approved NCR form must accompany each affected shipment and be attached to each part/container.
7. **Latent Defect** – Notify the BHEL for any latent defects for products that were shipped prior to the discovery of the defects. Notification is by use of an NCR and a cover letter including product description, shipper number, part number, revision and a corrective action statement as required by our customers and any regulatory authorities.

Section II: Selected Procurement Quality Requirements

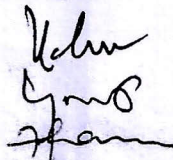
1. **Control of Quality** – Provide and maintain the quality control system shown on the purchase order. BHEL may ask/audit your quality system for compliance.

Specification and typical properties.

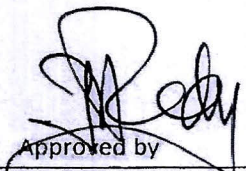
- | | |
|--|---------------------------------------|
| 1. Appearance at 25 ⁰ C | : Colorless liquid |
| 2. Moisture (CKF)/W/W Max) | : 1 % |
| 3. Ionic nature | : Nonionic (Alkyl Phenol Ethoxylates) |
| 4. pH (1 % Aqueous Solution) | : 5.5 – 7.5 |
| 5. Hydroxyl value (mg KOH/g) | : 125 – 135 |
| 6. Cloud point | : 58-63 10% solution. |
| 7. Pour point | : 0 |
| 8. Calculated HLB value | : 10.5 |
| 9. Density (gm/mat 50 ⁰ C) | : 1.014 |
| 10. Viscosity at 50 ⁰ C | : 350 at 20 ⁰ C |
| 11. Recommended bulk storage tem ⁰ C | : 25 |
| 12. Application : Aluminum and Zinc production, Aluminium stamping and drawing lubricant, iron and steel acid cleaning and pickling iron and steel sheet degreasing, steel phosphating, etc. | |



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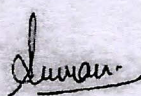
2. Test Reports/Certifications –

A legible/reproducible test report and/or certification will accompany each shipment. Each test report will identify the specification and revision as stated on the BHEL purchase order. Test reports must be dated and signed or stamped.

TEST REPORT SHOULD CONTAIN:

1. Sample to be evaluated for its “**DEGREASING EFFECTIVENESS**” as per **ASTM F22 - WATER BREAK TEST**.
2. Concentration % (w/w) in DM water.....: **0.05**
3. Effectiveness of degreasing property at **ambient temperature for 3** hrs.....: (satisfactory/not satisfactory)
4. Effectiveness of degreasing property at **80 ° C for 3** hrs.....: (satisfactory/not satisfactory)

3. **Shelf Life and Storage Requirements** – Shelf life and storage requirements set by specification require a shelf life statement. The statement will contain the Date of Manufacture (DOM), Date of Shipment (DOS), and/or Date of Test (DOT), as applicable. Include the BHEL purchase order number, material lot or batch number, and the storage requirements. **Do not ship supplies having less than 75% shelf life remaining without the written approval of BHEL.**
4. **Packing, storage and handling** – Supplier should inform BHEL about packing details, storage and handling instruction should be clearly marked on the shipment.
5. **Identification** – Unique identification will be assigned to articles and be noted and traceable throughout the associated documentation (reports and certifications).



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