

GILES CHEMICAL ~ PREMIER MAGNESIA

Company Procedure

Title: Quality Approval of Incoming Raw
Materials - COA

Number: P12-QA-100-073

Owner: Ashley Williams Revision: 01

Effective Date: 12/09/2013 Page: 1 of 3



1.0 Purpose

This procedure describes the steps necessary for granting Quality approval for incoming raw materials.

2.0 Scope

This procedure applies to all incoming raw materials used at Manufacturing.

3.0 Responsibility

Quality Associate is responsible for this procedure.

4.0 Safety Considerations

Wear appropriate PPE when working in the lab.

Safety is a condition of employment. Employees are not authorized to work in an unsafe manner and are prohibited from harming the environment of the facility or the community.

5.0 Materials/Equipment

N/A

6.0 Procedure

- 6.1 Open daily the Raw Material Inventory spreadsheet at N:\EngineerOps\RXR & Raw Material\Raw Material.
- 6.2 Identify railcars in which COA's are available.
- 6.3 Review COA's for identified railcars:
 - 1. For <u>Sulfuric Acid COA</u>'s go to N:\EngineerOps\RXR & Raw Material\Raw Material\Acid Paper Work
 - 2. For MgO COA's go to N:\EngineerOps\RXR & Raw Material\Raw Material\MgO Paper Work

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6.4 Record information on the following forms:

- 1. For <u>Sulfuric Acid</u> use *Quality Approval of Incoming Raw Materials COA Acid* (Q12-PR-100-F015b).
- 2. For MgO use Quality Approval of Incoming Raw Materials COA MgO (Q12-PR-100-F015a).
- 6.5 Check to see if railcar is within control limits and specifications.
 - 1. Control Limits for Sulfuric Acid are as follows
 - Color Upper Control Limit is 40.00
 - Iron Upper Control Limit is 7.50 ppm
 - Iron Lower Control Limit 0.50 ppm
 - 2. Specification Limits for Sulfuric Acid are as follows
 - H₂SO₄ Lower Specification Limit is 93.20%
 - H₂SO₄ Upper Specification Limit is 95.00%
 - Clarity @ 500NM Lower Specification Limit is 80.00%
 - Clarity @ 500NM Upper Specification Limit is 100.00%
 - Chlorides Upper Specification Limit is 10 ppm
 - Color Upper Specification Limit is 50.00
 - Iron Upper Specification Limit is 50 ppm
 - 3. <u>Control Limits</u> for MgO are as follows
 - -200 mesh Lower Control Limit is 65.00% Upper Control Limit is 81.00%
 - CaO Lower Control Limit is 2.50% Upper Control Limit is 4.00%
 - Insoluble Lower Control Limit is 1.60% Upper Control Limit is 2.50%

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- LOI Lower Control Limit is 1.40% Upper Control Limit is 4.20%
- MgO Lower Control Limit is 92.50% Upper Control Limit is 94.50%
- R₂O₃ Lower Control Limit is 0.80% Upper Control Limit is 1.10%
- Sulfur Lower Control Limit is 0.02% Upper Control Limit is 0.10%
- Bulk Density Lower Control Limit is 61lbs/cu ft Upper Control Limit is 69lbs/cu ft
- Reactivity Lower Control Limit is 24 degrees Upper Control Limit is 31 degrees
- 4. <u>Specification Limits</u> for MgO are as follows
 - LOI Upper Specification Limit is 5.00%
 - MgO Lower Specification Limit is 92.00%
- 6.6 If any railcar is out of specification limits, it is automatically rejected.
- 6.7 If any railcar is out of control limits it is reported to the Process Engineer, who will determine further action.

7.0 Reference Documents

Quality Approval of Incoming Raw Materials COA – MgO (Q12-PR-100-F015a) Quality Approval of Incoming Raw Materials COA – Acid (Q12-PR-100-F015b)

8.0 Change Information

New Document