



Journey to Zero

Our goal:

Zero accidents



ArcelorMittal

Mill scales Expert Group Overview on the Current Situation on Mill scales Registration

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2009/10/01



Introduction / background

Titel of Presentation

- 191 producers of steel and steel products have pre-registered Mill Scales
- In order to share REACH mill scales issues an expert group has been created including people from: Merox, Voestalpine, Dillingen and ArcelorMittal. This group is supported by the VdeH.
- This expert Group has decided by mutual agreement that the preparing of the final registration dossier will be organised by the Iron Platform
- SIEF facilitator is ArcelorMittal
- A sameness survey by the Iron Platform has been sent out in July 2009



Substance identity



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Titel of Presentation

- The production route is specified in the EINECS database.
 - **EINECS number: 266-007-8**
 - Name: Mill scale (ferrous metal)
 - The origin of mill scales is the oxidized surface of steel produced during reheating, conditioning, hot rolling, and hot forming operations. This substance is usually removed by process waters used for descaling, roll and material cooling, and other purposes. It is subsequently recovered by gravity separation techniques. Composed primarily of high-purity iron oxides. May contain varying amounts of other oxides, elements, and trace compounds.
- The substance identity will be the basis for the final SIEF formation and for the substance registration
 - At the moment we are in the Pre-SIEF phase. To enable the transition from the Pre-SIEF to the SIEF the problem of substance identity has to be solved. **Most important part of the discussion is the treatment of oil.** It was agreed that it has to be taken into account in the safety data sheet.
 - The oil content range has to be defined.



Substance identity



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Titel of Presentation

• 1. Chemical composition / Sameness discussion

- The mill scales will be considered as UVCB substance.
- Comparison between general Sameness and the proposal done by SIEF members:
 - Each constituent has to be analyzed under the metallic form.
 - No necessity to include an exhaustive list of constituent as many of them are in very low concentration.
 - Keep in mind that the metallic contents depend strictly on site application.
- For Sameness details: see proposal forwarded to the SIEF members by the Iron Platform

• 2. Uses

- . Use in the cement industry
- . Use as counterweights
- . Use for iron production (in sinter plants and coke ovens)
- . Use in the ferroalloy production
- . Use in production of friction agents
- . Use in the production of refractories
- . Use in the production of welding electrodes
- . Use in the production of iron salts and iron oxides

3. REACH approach

- Due to the high concentration of Iron oxide, it seems reasonable to use the EINECS number 215-570-8 to describe the mill scales and built the dossier on this substance, but including the oil content specificities.



Registration in practice, IT tools

- By using the IUCLID 5 database Franz Jost introduced via live-connection to the server located at Dillingen a steel slag example and a test Mill Scale data base to show the possibilities and limitations of this tool. As for all high volume substances (>1000 tonnes per year) the annexes VII to X of the REACH regulation will have to be filled in.
- It was decided to register Mill Scales as UVCB. Oil will have to be mentioned in the dossier. Mr Jost will make a proposal where and how to do this.
- The following working approach for preparing the Mill Scale dossier should be discussed within the Iron Platform taking into account the following suggestions coming from the mill scales WG:
 - The IUCLID 5 dossier will be filled by a consultant,
 - Mr Jost REACH manager of Dillingen Hütte should be the intermediate between the consultant and the experts (Iron platform and existing mill scales experts working group)



Others

Titel of Presentation

- Data gap analysis:
 - Currently the expert WG has no information concerning the data-gap analysis (iron, iron oxides). A clear follow-up of this topic has to be communicated as soon as possible by the Iron Platform experts to G.Dollé.
- ArcelorMittal proposes itself for being LeadRegistrant
- Roadmap and Management: ArcelorMittal via G.Dollé