EUROFER
European Confederation of Iron and Steel Industries

10 October 2008

EUROFER REACH position on iron oxides and mill scales (10 October 2008)

Under European Substance Regulation (ESR) the steel companies took 3 EINECS numbers for iron oxides and 2 EINECS numbers for mill scales. To catch these companies (because they will probably take the old list as a starting point), we will also pre-register these five numbers. The sameness check should decide how many SIEFs will be used in the end. It's possible to split SIEFs or join them in the pre-SIEF period.

EINECS	Name and formula (as in ESIS[1])	Proposed name for pre-registration	Read across[2]
215-168-2	Diiron trioxide (Fe_2O_3)	Iron ore pellets Diiron trioxide (this covers the regenerated ironoxide from the pickling line) Iron & steel scale	265-997-9 265-996-3 293-664-8 266-007-8 215-570-8 257-098-5 215-721-8 215-169-8 215-277-5
265-997-9	Iron sinter (no chemical composition given)	Iron Sinter	215-168-2 265-996-3 293-664-8 266-007-8 215-570-8 257-098-5 215-721-8 215-169-8 215-277-5
265-996-3	Iron ores agglomerates (no chemical composition	Iron (ore) pellets, briquetted iron ore pellets, iron ore briquettes	215-168-2 265-997-9 293-664-8

[1] European Chemical Substances Information System

[2] EINECS names of the read across numbers in ESIS:

215-168-2: Diiron trioxide (Fe_2O_3).
265-997-9: Iron sinter
265-996-3: Iron ores agglomerates
293-664-8: Scale (coating), steel-fabrication
266-007-8: Mill scale (ferrous metal)
215-169-8: Magnetite
215-277-5: Triiron tetraoxide (Fe_3O_4).
215-570-8: Iron oxide (Eurofer calls it α-Fe_2O_3)
257-098-5: Iron hydroxide oxide yellow (no separate registration needed for hydroxides).
215-721-8: Iron oxide

	given)		266-007-8 215-570-8 257-098-5 215-721-8 215-169-8 215-277-5
293-664-8	Scale (coating), steel-fabrication	Scale Mill scale Mill scale dry (forging)(HM)	215-168-2 265-997-9 265-996-3 266-007-8 215-570-8 257-098-5 215-721-8 215-169-8 215-277-5
266-007-8	Mill scale (ferrous metal)	Cinder Ferrosoferric Iron Oxide Wet mill scale from rolling Oily Mill Scale Mill scale cinder Magnetite Scale sludge	215-168-2 265-997-9 265-996-3 293-664-8 215-570-8 257-098-5 215-721-8 215-169-8 215-277-5

Mill scales (EINECS 293-664-8 and 266-007-8[3]) are mainly FeO (Wuestite), but also contain Fe2O3 (Haematite), Fe3O4 (Magnetite) and other oxides and substances. If a legal entity (company) doesn't classify mill scales as a waste, it should pre-register them under one of the mentioned number(s) of mill scale(s)[4].

There will be a *sameness check*:

- from EINECS number 265-996-3 (iron ores agglomerates) with EINECS number 215-168-2 (diiron trioxide) in the pre-SIEF. Although regenerated Fe2O3 from the pickling line is fine dust and pellets are not in the form of fine dust, SIEFs are based on chemical composition and not on physical form (this is the reason that all carbon is not exempted anymore, although only the nano-particulates could be dangerous).
- from EINECS number 293-664-8 (mill scale dry (forging)(HM)) and EINECS number 266-007-8 (mill scale (ferrous metal)) to end in one registration with all the mill scales which are not classified as waste.

The following EINECS numbers *won't be used*, but will only be used as read across:

[3] Although EINECS number 305-438-9 (Slimes and sludges, steel rolling) could also be used for mill scale, this won't certainly not be used to register mill scale in the end. So 305-438-9 won't be used for pre-registration

[4] FeO (EINECS number 215-721-8) is not in the main table, because it is recommended to pre-register mill scale under the mill scale numbers. A read across with 215-721-8 for the two mill scale numbers is proposed in the main table, so all mill scale producers can gather in the pre-SIEF

- EINECS number 215-169-8. Name: Magnetite. It's Fe(II, III) oxide. It's a mineral, so it's exempted because of Annex V.
- EINECS number 215-277-5. Name: triiron tetraoxide (Fe3O4). It's not manufactured in the steel industry. It will be manufactured as a waste in mill scale; however, if a legal entity (company) does want to pre-register, it is covered by one of the two EINECS numbers for mill scale (293-664-8 or 266-007-8).

The *type of substances* will always be Monoconstituent / UVCB[5]. Although sinter typically contains about 5-15% FeO, up to 15% CaO and the rest is Fe and Fe2O3, there is an EINECS number for sinter, so pre-registration as MCS[6] is not necessary (for MCS you will have to mention all the constituent's EINECS numbers).

[5] Substances of unknown or variable composition, complex reaction products or biological materials
[6] Multiconstituent substance