



UEIL H+E response to ECHA regarding boric acid and some borates as SVHC.

Public consultation to the candidate list is possible until April 22, 2010, on below link:

http://echa.europa.eu/consultations/authorisation/svhc/svhc_cons_en.asp

The screenshot shows the ECHA website page for 'Proposals for identification of Substances of Very High Concern'. It includes a navigation menu on the left and a table of current consultations. The table lists substances such as Trichloroethylene, Boric acid, Disodium tetraborate, and various chromates, along with their EC and CAS numbers, proposing authorities, reasons for proposing, and publication dates. Each row includes a link to the Annex XV report and a link to the commenting form.

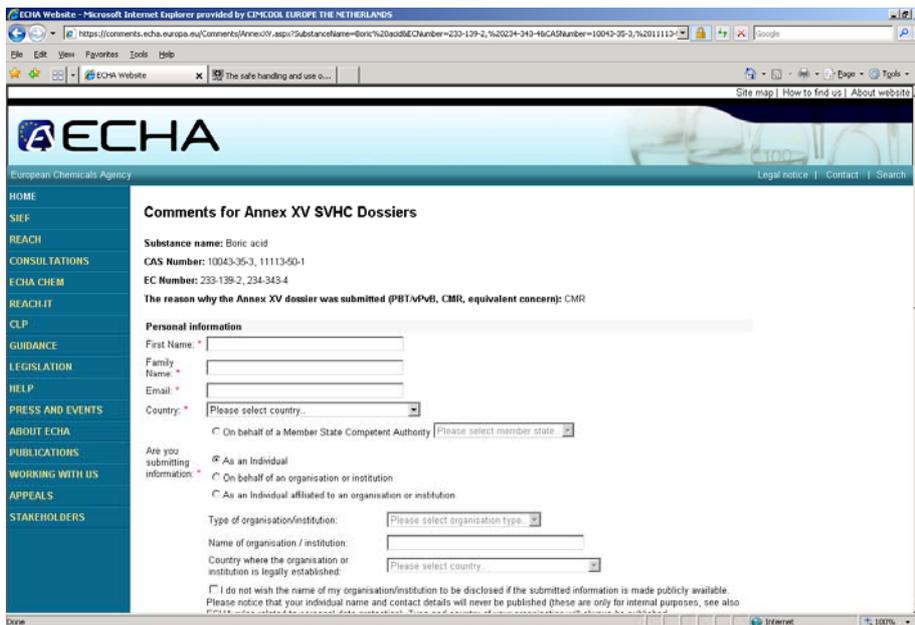
Substance identification			Proposing authority	Reason for proposing	Date of publication	Deadline for commenting	Link to the Annex XV report	Link to commenting form
Substance name	EC number	CAS number						
Trichloroethylene	201-167-4	79-01-6	France	CMR	08/03/10	22/04/10		Submit information
Boric acid	233-139-2	10043-35-3	Germany	CMR	08/03/10	22/04/10		Submit information
	234-343-4	11113-50-1						
Disodium tetraborate, anhydrous	215-540-4	1303-96-4	Denmark	CMR	08/03/10	22/04/10		Submit information
		1330-43-4, 12179-04-3						
Tetraboron disodium heptaoxide, hydrate	235-541-3	12267-73-1	Denmark	CMR	08/03/10	22/04/10		Submit information
Sodium chromate	231-089-5	7775-11-3	France	CMR	08/03/10	22/04/10		Submit information
Potassium chromate	232-140-5	7789-00-6	France	CMR	08/03/10	22/04/10		Submit information
Ammonium dichromate	232-143-1	7789-09-5	France	CMR	08/03/10	22/04/10		Submit information
Potassium dichromate	231-906-6	7778-50-9	France	CMR	08/03/10	22/04/10		Submit information

* The Annex XV reports for 'Disodium tetraborate, anhydrous' and 'Tetraboron disodium heptaoxide, hydrate' are identical because these substances form the same compounds in aqueous solution and can be utilised for similar uses.

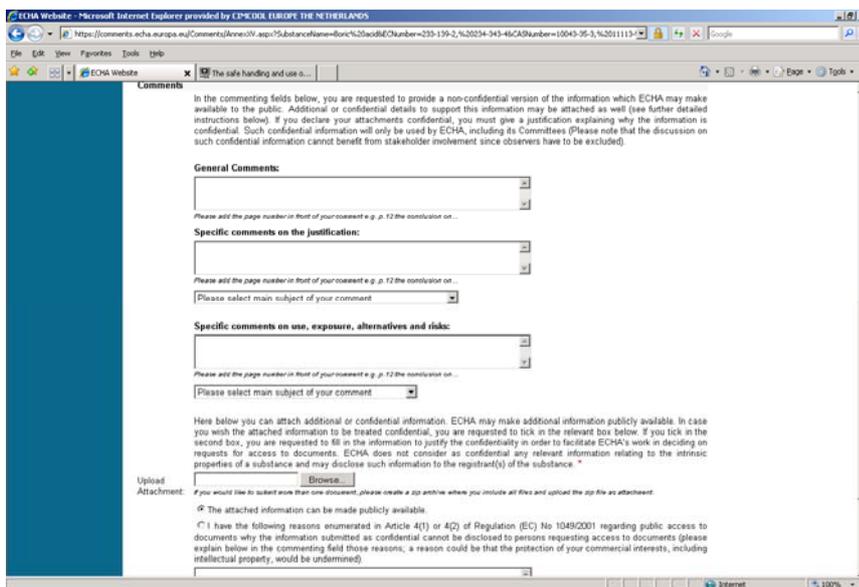
The below information mainly applies to Boric acid, but will also be applicable to the other borates as mentioned in above print screen.

Upon selecting the "link to commenting form" you are able to enter the information.

In the top section of the website you give information on who's behalf you give an reaction. This could be an association, company, member of the public, etc.



In the lower section you can give comments, some of which may be confidential



The following is a suggestion from the UEIL H+E workgroup regarding which information can be given.

Please note the following:

1. use your own wording as much as possible.
2. please remember that boric acid contributes to a stable buffer and therefore is robust against microbial attacks. Boric acid as used in metalworking fluids, does not have significant biocidal properties and this use in metalworking fluids is not listed as biocide according to the BPD.

General comments to add in the consultation form (*words in italic: comments/hints: please remove before copy&paste*):

Industry Associations:

We are XXXXX(include INITIALS e.g. VSI, UKLA etc.), the EU Member State Trade Association representing the United Kingdom / France / Germany/ Italy / Spain/ Benelux (*delete as necessary*)

lubricants Industry and are the member organisation for our country within UEIL, the European Lubricants Industry Organisation.

Companies:

We are xxx, a EU member state user of boric acid and a member of the yyy, the association of the zzz lubricant industry.

Specific comments on the justification:

In our opinion Annex XV Dossiers should not be filed until REACH Dossiers are reviewed in 2011. We support the arguments given by the European Boric acid Association (EBA).

Specific comments on use, exposure, alternatives and risks:

Exposure to boric acid during metalworking fluid (MWF) manufacturing:

(please quote your own specific data measured during manufacturing, if you have any? e.g:

We have some data for manufacturing sites: were boric acid is filled into mixing vessels

We have already workplace measurement in place to reduce the exposure to boric acid to a minimum. All data show, that nowhere the threshold limit is exceeded. Boric acid is delivered in plastic bags ("BigBags") and filled directly into the mixing vessel, were the metalworking fluid is manufactured via an automatic equipment which also fold the empty bags avoiding any dust. A local exhaust ventilation is used. Workers handling boric acid (about 0,5h/shift) wear always FFP3 dust masks. Exposure to human and environment is highly unlikely.

Exposure to boric acid in use as metalworking fluid.

The official UK method for determining metalworking fluid mist is based on a tracer. This could be: sodium or boron. See the link below for details:

<http://www.hse.gov.uk/pubns/mdhs/pdfs/mdhs95-2.pdf>

The UK Guidance value metal working fluid end users for mist is 1 mg/m³; assuming a worse case scenario of a 10% MWF containing 10% boric acid, than the maximum exposure would give the extremely low 0,01 mg/m³ boric acid.

Since March 2007 a health risk based exposure limit of 2,6 mg/m³ boric acid is in place in Germany ("gesundheitsbasierter AGW", published in the TRGS 900), corresponding to 0,5 mg/m³ Boron (lead component). According to the definition of an AGW, acute or long term hazard can be excluded if the exposure limit is not exceeded. Furthermore, there is a remark ("Y"), that there is no expected risk for fertility/harm to the unborn child (R60/61) if the limit is not exceeded. Initial measurements of the Berufsgenossenschaft showed that the limit was never exceeded.

Link to the TRGS 900: <http://www.baua.de/cae/servlet/contentblob/666762/publicationFile/55576/TRGS-900.pdf>

Data generated by the BG Metall and the Verband Schmierstoffindustrie (VSI) in Germany showed, that the concentration of free boric acid in metalworking fluid concentrates is by far below 10%. Measurements performed by ¹¹B NMR spectroscopy showed an average concentration of 2% in the metalworking fluid concentrate, leading to a maximum of 0,1% in the emulsion used by the end user (metalworking fluids are a mixture of 4-5% concentrate in water).

Apart from health and safety aspects, there are a number of other issues to look for

Boric Acid Benefits:

- stable buffer capacity, thus robust against microbial attacks.
- good availability
- good price performance ratio
- used without problems for many decades in the metalworking fluid industry.

Are there alternatives?

- Although industry investigated alternatives for many years, no alternatives were found (*Justifications: can we quantify this statement?*)
- All alternative formulations are, due to reduced buffer capacity, much less robust against bacterial attacks leading to increased usage of biocides, which from a health, safety and environment perspective is undesirable.
- The lifetime of alternative formulations is significantly lower, resulting in a more frequent change and will have a higher consumption of resources and thus is poorer from a sustainability standpoint.
- Lastly, the alternative formulations that use higher biocide levels are coupled with increased disposal rates and these higher waste levels will cause increased pressures on the environment.

The European metalworking fluid manufacturers support the Product Stewardship principle to supply products that can be manufactured, transported and used safely. We work with suppliers, customers and regulatory authorities to reduce the health and environmental impact of metalworking fluids. We believe the use of boric acid / borates is safe within our industry. The below give links to documents that demonstrates our work.

Safe handling of metalworking fluids:

<http://www.hse.gov.uk/metalworking/video/>

Comment of the Berufsgenossenschaft (Accident Prevention & Insurance Association, Germany) on boric acid containing metalworking fluids: “The MWF product containing derivatives of boric acid shows a good stability to colonisation with mycobacteria already in the non-preserved state (formulation without biocides) and thus also the best effect of the biocides tested”, cited from:

<http://www.bg-metall.de/praevention/gesundheitschutz/biologische-gefaehrdungen/kuehlschmierstoffe/mykobakterien.html>

UKLA boric acid position paper:

http://ueil.org/health_environment/documents/ukla-boric-oct09.pdf

BG boric acid information sheet

http://www.vsi-schmierstoffe.de/fileadmin/template/VSI-Verwaltung/Texte/030_MFS_E2009-04_Boric_Acid.pdf

Concluding, we feel that the use of boric acid is safe. Including Boric acid and disodium tetraborates on the list of SVHC will force end-users to move to boron free metalworking fluids. This will result in higher biocide usage (with their related health issues) and higher consumption of resources. Including boric acid and disodium tetraborates on the list of SVHC will have an opposite effect compared to REACH’s targets.

Upload Attachment

Please include EBA’s document; attached to this E-mail