



Excel Industries Ltd.



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IS/ISO 14001:2015
IS/ISO 45001:2018
Certified by BIS.

To,
Member Secretary,
PCD-9; Manak Bhavan-9
Bahadur Shaw Jafar Marg,
New Delhi-2

2nd September, 2024

Subject: Our Comments on IS 4117:2008 Alcohol Denaturants-Specification (Second Revision)

Dear Aditi Choudhary ji,

This has reference to our comments on IS 4117:2008 Alcohol Denaturants-Specification (Second Revision). We wish to submit as follows:

A) About the Company:

Our founder Late Shri founded Excel Industries Limited in 1941. C. C. Shroff at Mumbai for the manufacture of Chemicals for Industry and Agriculture. **Our vision is to provide Agriculture support to the country, through products of Import substitution, using Indigenous technologies and Human capabilities truly aligned as per today's MAKE IN INDIA concept.** We are leaders in Agrochemical intermediates, Industrial, Specialty, and Pharma intermediate, manufacturing from Alcohol.

B) Foreword:

Excel Industries Limited has been using Specially Denatured Ethanol (SDS) for its production of various Agrochemical intermediates, Specialty and Pharmaceuticals intermediates. The consumption of SDS per annum is ~140-150 lakh liters, which are sourced from various distilleries of Maharashtra.

With the increase in mixing of ethanol by Oil Manufacturing Companies (OMC's), its availability has become scarce, and prices have soared quite high. This increase in cost has made our existing production processes unviable. As Government plans to further increase the blending ratio to achieve Blending target of 20%, availability of Ethanol for chemical usage is expected to reduce drastically.

As a result, we are dependent on imports from Brazil and USA for manufacturing Agrochemical Intermediates and other products.

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Ethanol sourced from various distilleries across the state of Maharashtra has been denatured with 0.5% Cyclohexane + 40ppm Bitterant and has been put to industrial use by Excel Industries Ltd.

For imports of Ethanol for our usage, as per IS 4117:2008, after unloading at Dockyard it is denatured with 2% Cyclohexane + 40ppm Bitterant. If 2% Cyclohexane is mixed in SDS, in order to reduce it to 0.5% cyclohexane, it has to be azeotropically distilled. This is highly energy intensive process, which adds to Carbon emission to the environment and increase pollution load in the wastewater.

The presence of excess Cyclohexane of more than 0.5 % will create additional impurities in the product, making it unfit for use at our customers end and affecting our market demand.

Our Humble submission:

Although the fact that Indian Standard (formulae for denatured alcohol: SD 2b) has mentioned addition of 2% Cyclohexane + 40ppm Bitterant to denature ethanol before industrial use.

However, after detailed studies done by senior professors of IIT Mumbai upon request from Department of State Excise, Government of Maharashtra, it was found that 0.5% Cyclohexane is equally effective to render the SDS poisonous and restrict its use for human consumption. Ethanol sourced from various distilleries across the state of Maharashtra has been denatured with 0.5% Cyclohexane + 40ppm Bitterant and has been put to industrial use by Excel Industries Limited.

It is worthwhile to mention here following facts about said denaturant:

1. Addition of 0.5% Cyclohexane is sufficient to provide poisonous effect to SDS, making it unfit for human consumption. Separation of 0.5% cyclohexane involved highly energy intensive, series of Distillation process.
2. Addition of 40ppm Bitterant makes ethanol unfit for human consumption. No distillation or unit operation can remove Bitterant from Alcohol, as it imparts Bitter taste to the Alcohol.



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3. Both 0.5% Cyclohexane & 40 ppm Bitterant can be analyzed in the Excise of Government notified laboratories. There are standard procedures available for both components.

Our Proposal:

Present SD 2b formulae may be amended from Cyclohexane 2% + 40 ppm Bitterant to 0.5% Cyclohexane + 40 ppm Bitterant. Our products i.e. Agrochemical intermediates falls under category of Miscellaneous Products (processing) as per Annexure B, S.No.: 74, IS 4117:2008, Second Edition.

Looking forward with a lenient view on our submission.

Yours Sincerely,

For Excel Industries Limited

Dr. Krishnendu Sil
(G.M.: Sustainability, Systems and Q.A.)
9764044600
krishnendu.sil@excelind.com



Enclosed : Detailed Note (Annexure:1)

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