



To

International Water Services Flushability Group
IWFSG

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Kelheim, 30th August 2017

Draft Flushability „Standard“

Dear IWFSG,

Kelheim Fibres GmbH (KFG) is a producer of viscose/ rayon specialty fibres. Our products are used globally in various processes for hygienic, medical, textile or technical end-uses.

Please allow us to start with kind of a historical introduction: More than 10 years ago, KFG was asked to develop a specialty fibre for flushable products and wipes in particular. We came up with specific geometries and fibre modifications to meet that need, but one key issue could not be resolved: At that time, all end products were based on 30 to 40mm long staple fibre for the carded spunlacing process. Fibres of that length cannot disperse properly, or they will always re-entangle in the sewer system. As an example, all current baby wipes are based on this carded technology. KFG focused on the development of short-fibre solutions, but not appropriate nonwoven production technology was available at that time.

The situation changed completely when machine suppliers developed new wetlaid technologies to combine pulp with short fibre of about 10mm length. In combination with this length, our fibre modifications help to create products that disperse quickly and CANNOT cause any issues to the sewer system. These products are marketed and sold in North America for more than 2 years now. They consist of raw materials made of 100% renewable resources and are fully biodegradable according to different internationally acknowledged standards. In our opinion, these products are a very good example of successful product engineering to create materials that are fully compatible with the sewer systems or wastewater treatment plants, and that are fully biodegradable. This has been proven in live sewer tests and collection studies performed together with the German wastewater association; if you are interested, we are happy to share these results with you.

Regarding the so-called “standard” you drafted, please find our detailed comments in the attachments. Please allow us some general remarks on the draft itself:



- We do not agree with the wording for a “standard” or the “public available specifications”. Same as with INDA’s GD 3 documents, this draft covers a guideline.
- In addition, the document should not be suggestive of being a regulation. Standards and regulations should be reserved to organizations like ISO or ASTM.
- As mentioned above, we do not agree that banning all products currently sold as flushable wipes will improve your current situation of blockages and other issues in the sewer system or wastewater treatment plant. So far, there has been no evidence that any of these products we know – based on short-cut and pulp – were causing any impacts to the system. In fact, these products are a solution to this problem, since they will replace spunlaced products that DO interfere with the systems.
- The draft claims copyrights for all text, graphs, images etc., but in fact there are various verbatim uses of information that are already copyrighted (e.g. in INDA’s/EDANA’s GD 3).
- The test methods and criteria that are mentioned in the draft do not contain any reference for any studies or other scientific work. At least upon request, these detailed study results would be very important to judge the appropriateness of tests and pass/fail criteria. As a consequence, we would also need validation and verification data.

Please note that very likely these comments are not exhaustive, but you are welcome to publish these comments or the content of this letter on the IWFSG-website.

In general, we do not consider a process to be fruitful where one party publishes a set of guidelines by itself. In our opinion, a solution must be found where both industry and wastewater associations together define the common way forward. In Germany, KFG was able to establish a very efficient cooperation with our regional and national wastewater authorities, resulting in joint training courses and collections studies with benefits on both sides. We would be happy to expand that dialogue to include a broader group wherever possible.

Best regards,

Sebastian Basel
Business Manager Speciality Papers
Kelheim Fibres GmbH

Attachment: Comment template

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment ²	Comments	Proposed change	Observations of the secretariat
KFG	PAS1 L 92	7.1		Ed	By definition banned substances are banned ! There is no need to state this separately in this doc. This is outside the scope of these guidelines.	Remove section 7.1	
KFG	PAS1 104- 117 and 122	7.2.2		Te	Part MAKES NO SENSE - taking in account PAS0: Terms-and-Definitions 5.2.1 Biodisintegration ... Line 198: “ “A material is biodegradable if it can, with the help of micro-organisms, break down into natural elements This is clearly given with reg. Cellulose which does consequently not lead to microplastics. Reg. Cellulose is made of wood pulp. The cellulose obtained from wood consists of the same natural polymer found in natural cellulose (e.g. cotton). In fibres made of reg. Cellulose the cellulose adopts to the crystal structure cellulose II, which has a different orientation and benefits from their higher accessibility to water and microorganisms leading to full bio-degradation, at a rate comparable or higher to cotton. Cellulose is a natural molecule that is found in all plant based life in the ocean.	reg. Cellulose to be counted equivalent as wood pulp and not named “synthetic” drop % limitations on reg. cellulose Proofs: verified by international standards and certified by international certification organizations such as VINCOTTE and DIN CERTCO Compostability and biodegradability in soil per the European Standard EN 13432 Biodegradability in the marine environment with reference to ASTM D7081 and EN 13432	
KFG	PAS1 124- 125			Te	detection of a single “synthetic fiber” being a cause for failing the sample is NOT reasonable. There are multiple sources for cross contamination of individual foreign fibers unless a clean room lab is utilized which does not seem to be appropriate.	Drop criteria associated with zero tolerance	
KFG	PAS2A 200- 202			Te	Periodically is not prescriptive enough.	Calibration periods need to be clearly described	
KFG	PAS2A 280- 282			Te	How does a laboratory determine presence of “fiber-binding chemicals” versus other applied substances in wipes?	Clarify	

¹ Adapted from the ISO/IEC Commenting template. ² Te = Technical, Ge = General, Ed=Editorial

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KFG	PAS2B 323			Te	there are not enough specifics around the test addressed which allows variation in the test equipment – therefore reproducibility is not given depending on exact setup.	Adopt GD3 “travel distance of the Centre of Mass of the flushed material in the drain line does not consistently decrease over the course of 5 consecutive flushes”	
KFG	PAS2B			Te	Periodically is not prescriptive enough. No consistency with slope: 1 degree. Earlier in the text (line 135) it indicates a 2% slope.	Define periodically.	
KFG	PAS2C			Te	For such a test detailed background data should be provided. It is expected that this test could be failed even with quality toilet paper under certain conditions (which per definition does not cause problems in sewer infrastructures).	Reconsider the value of this test. Small changes in sewer environment can cause significant deviations in the results!	
KFG	PAS3A			Te	Test method does not seem to represent any correlation to realistic sewer system environment .	Cancel this test option	
KFG	PAS3B			Te	Is there any evidence that shows >95% pass rate with preconditioning with 6.3mm sieve represents the appropriate requirements for slosh box disintegration?	Reconsider Slosh Box setup as used for GD3 Use stronger acceptance criteria (such as reduced time and higher % pass rate)	
KFG	PAS3C			Te	Test not acceptable – does not represent realistic sewer system environment	Cancel this test option	
KFG	PAS3 A-C			Te	NOT understandable why to offer 3 different test where only 1 has to pass.	Agree together with industry on ONE valid disintegration test	
KFG	PAS5A			Te	Significant smaller hole with longer time – without discussion why.	Please provide data / validation as explanation why the timing and hole size should be changed.	

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KFG	PAS5A			Te	incubation time required changed from 28 to 21 days / sieve size has been changed from 1 mm to 0.6 mm (against EDANA FG506A) with no discussion why	Please provide data / validation as explanation why the timing and hole size should be changed.	
KFG	PAS5B 336- 337			Ed	In order to log in the time where gas is not generated, the samples would have to be monitored 24/7. Is it the intention of this method to have samples monitored 24/7?	Clarify	
				Te	Municipal Pump Test is NOT required – however this is the point in Sewer Systems where most blockages occur - does not make sense to leave out!	Reconsider necessity of Municipal Pump Test.	

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