



18 January 2019

Subject: REACH Substances of Very High Concern and Ashland

Dear Customer,

The following information is provided in response to your request for Ashland's position concerning the presence of Substances of Very High Concern (SVHCs) in the products we manufacture, market and sell to customers in the European Union (EU).

Ashland can confirm that:

- Procedures are in place to ensure compliance with the REACH obligations of a supplier (see appendix 1) for proactively and reactively informing our customers in situations where SVHCs are present in our products. Additionally, as a general rule, Ashland will provide you with the latest version of the Safety Data Sheet (SDS) upon product purchase. If an SVHC is present in any of the products you purchase from Ashland, the substance will be listed on the European SDS (at "any known concentration" equal to or greater than 0.1 %).
- The following SVHC substances are present in Ashland products (see appendix 2 for specific Commercial Unit products);
 - 1-methyl-2-pyrrolidone (June 2011)
 - cyclohexane-1,2-dicarboxylic anhydride and 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated (December 2012)
 - 4-nonylphenol, branched and linear, ethoxylated (June 2013)
 - octamethylcyclotetrasiloxane (D4), decamethylcyclopentasiloxane (D5), dodecamethylcyclohexasiloxane (D6), and dicyclohexyl phthalate (June 2018)
- Propylene oxide (methyl oxirane), which was added in December 2012, is not present in our products at levels of 0.1%, or higher. The propylene oxide in our products is bound (to polymers or other substances) and will not be released.
- Please see appendix 2 for an overview of the Ashland products involved. Where applicable, you will see these substances identified on the European SDS for the product. Although not legally required, Ashland is working on the reformulation of (some of) these products, where there is a benefit from reformulation to Ashland and our customers. In specific cases, you may be contacted to review the options.
- As additional SVHCs are placed on the candidate list, we will review the formulations of our product portfolio to phase out these substances from our products, where possible.

If you have questions regarding any REACH-related subject, please contact Ashland via your representative or send an e-mail to globalregulatorycustomerrequest@ashland.com

Kind regards,

Sandor Zuurendonk
Manager - REACH

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REACH will continue to apply in the United Kingdom until the United Kingdom exits the European Union. REACH or REACH-type requirements may continue to apply after the United Kingdom exits the EU, however this is unclear at the moment. Once the consequences of the exit become clearer, Ashland will decide on necessary steps to be taken.

Appendix 1

SVHC

SVHCs, also known as "Annex XIV substances," are clearly described in Article 57 of Regulation (EC) No 1907/2006 (the "REACH Regulation"). These substances are identified according to ECHA (European Chemicals Agency):

- **CMR** substances; Carcinogenic, Mutagenic or toxic to Reproduction, meeting the criteria for classification in category 1 or 2 in accordance with Directive 67/548/EEC,
- **PBT** substances; Persistent, Bioaccumulative and Toxic according to the criteria in Annex XIII of the REACH regulation, or
- **vPvB** substances; very Persistent and very Bioaccumulative according to the criteria in Annex XIII of the REACH Regulation, and/or
- Identified, on a case-by-case basis, from scientific evidence as causing probable serious effects to human health or the environment of an equivalent level of concern as those above (e.g., endocrine disrupters).

In January 2019, ECHA updated the candidate list of SVHCs, which now contains 197 substances. The list is incomplete and more substances may be added. Please use the following link to see the latest version of the candidate list:

<http://www.echa.europa.eu/web/guest/candidate-list-table>

These substances may become subject to Authorisation. As result the following obligations apply;

Obligations

ARTICLES

- **From 28 Oct., 2008**, EU and European Economic Area (EEA) suppliers of articles which contain substances on the Candidate List in a concentration above 0.1% (w/w) **must**
 - **provide sufficient information, available to them, to their customers and on request to consumers within 45 days of the receipt of this request.** This information must ensure safe use of the article and, as a minimum, include the name of the substance.
 - **notify the Agency**, according to article 7 (2), **if the substance is present in those articles** in quantities totaling over 1 tonne per producer or importer per year.

SUBSTANCES

- **From 28 Oct., 2008**, EU and EEA suppliers of a substance have to **provide a safety data sheet to their customers** when the substance is on the Candidate List.

PREPARATIONS

- **From 28 Oct., 2008**, EU and EEA suppliers of a preparation not classified as dangerous according to Directive 1999/45/EC have to **provide the recipients, at their request, with a safety data sheet** if the preparation contains at least one substance on the Candidate List and its individual concentration is at least 0.1% (w/w) for non-gaseous preparations and at least 0.2% by volume for gaseous preparations.

Ashland's products, in general, are preparations (mixtures of several substances).

Appendix 2

The tables below present an overview of those Ashland products currently on the European market, containing SVHCs. Although not legally required, we are working on the reformulation of (some of) these products, where reformulation would be valuable to both Ashland and our customers. In specific cases we will contact you to review the options.

* Under Article 56(3) use of substances in scientific research and development is exempt from Authorisation. According to the definition of REACH, scientific research and development means any scientific experimentation, analysis or chemical research carried out under **controlled conditions** in volume less than one tonne per year. On the basis of this, it is likely that the use of substances as test reagent or indicator **in laboratory settings** is exempt.

4-nonylphenol, branched and linear, ethoxylated (EC# not specified)	
Ashland Product Number	Product Name
818650, 818711	PURERAD 18670E UV PSA
846911	PURERAD L8010E UV PSA
819600	PURERAD DP8700E UV PSA DIGITAL
818712, 818713	PURERAD 19013E UV PSA
846912	PURERAD L8020E UV PSA

1-methyl-2-pyrrolidone (EC#212-828-1)	
Ashland Product Number	Product Name
826099	AGSOLEX I
830697, 830698, 830699, 839217	PHARMASOLVE
830701, 830703	PHARMASOLVE V
829774, 839067, 839068	MICROFLEX I
829921, 829927, 829928, 829929, 829930, 829931, 829932, 829933, 829934, 837351, 839089	M-PYROL
829838, 829841, 829842, 829843, 829844, 829845, 857892	MICROPURE EG
829847, 829848, 857893, 857894	MICROPURE ULTRA II
828306, 828307	GAFSOLVER TMP

4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated (EC# not specified)	
Ashland Product Number	Product Name
824784, 824785	PURETHANE CO-CL0029E WB LA

cyclohexane-1,2-dicarboxylic anhydride (EC#201-604-9)	
Ashland Product Number	Product Name
776150, 776181	PURERAD 3400470 LOW MIGR LAM ADH
813084, 813085	PURERAD 3400865 LM PET LA
624871, 813753	PURERAD 52574 F LAM ADH
624872, 704392	PURERAD 52575 LAM ADH
765680, 765851	PURERAD 52575D LOW MIGR LAM ADH
745256, 805521, 745257, 812559	PURERAD 52575E LOW MIGR LAM ADH
627197, 771860, 812334	PURERAD 53330 UV LAM ADH
743384, 769912, 771310, 743386	PURERAD 53637 PET LAM ADH
782004, 783298	PURERAD 60025 LOW MIGR ADH
782077	PURERAD 60030 LOW MIGR ADH
782078	PURERAD 60035 LOW MIGR ADH
617189, 617190	PURERAD FA331FLA LAM ADH
845211, 862056, 862609	PURERAD L7000E HB LAM ADH
845214, 910231	PURERAD L7070E PET LAM ADH
875590, 875651	PURERAD 52575F LOW MIGR LAM ADH
617516	NWC 52574 F LAM ADH
883457, 883458	PURERAD LED 7500E
883052, 883053, 885291, 895777	PURERAD L7200E

846716, 624871, 813753	PURERAD LM7000E LOW MIGR LA
846718	PURERAD LM7010E LOW MIGR LAM ADH
846880	PURERAD L7050E PP/PET LAM ADH
906032, 906033, 906034	PURERAD L7211E UV LAM ADH
911954	PURERAD L7200E LM LAM ADH

dodecamethylcyclhexasiloxane (D6) (EC#208-762-8)	
Ashland Product Number	Product Name
877124	CAPTIVATES GL21748
877126	CAPTIVATES GL21749
910489, 910490, 910511	CAPTIVATES GL21881
828965, 828966	ISP CAPTIVATES HC2825

decamethylcyclopentasiloxane (D5) (EC#208-764-9)	
Ashland Product Number	Product Name
358205, 838260, 839621	DREWPLUS S-4382
877124	CAPTIVATES GL21748
877126	CAPTIVATES GL21749
910489, 910490, 910511	CAPTIVATES GL21881
839047, 829570	LUBRASIL
828965, 828966	ISP CAPTIVATES HC2825
839458, 839459, 831698	SI-TEC CM 040
852320, 831712, 831713	SI-TEC GF 1000
839464, 831714, 831715	SI-TEC GF 3092

octamethylcyclotetrasiloxane (D4) (EC#209-136-7)	
Ashland Product Number	Product Name
722164, 838243, 839605, 722163	DREW 210-900
722166, 838244, 839606, 722165	DREW 210-901
851598, 851599, 851600, 851681	ASHLAND ASI D-5675
637265, 838261, 637266, 51357, 100799, 309880	DREWPLUS S-4386
576901, 838259, 839620, 576560	DREWPLUS S4374
838258, 839619, 587590, 587753	DREWPLUS S-4288
838237, 340674, 637020, 325835, 895847	DREW 210-862
838242, 839604, 320777, 353540, 320775	DREW 210-886
100544, 838263, 839622, 172209, 340821, 637268, 637270	DREWPLUS S-4480
50516, 838281, 839639, 67797, 637304	DREWPLUS TS-4481
358205, 838260, 839621	DREWPLUS S-4382
839458, 839459, 831698	SI-TEC CM 040
852320, 831712, 831713	SI-TEC GF 1000
839464, 831714, 831715	SI-TEC GF 3092
839462, 831708, 831709	SI-TEC DMC 6031
839463, 831710	SI-TEC DMC 6038
833933	PURERAD 2600 SLIP ADDITIVE

dicyclohexyl phthalate (EC#201-545-9)	
Ashland Product Number	Product Name
879634, 879635, 889243	PURESEAL 23519ES HEATSEAL
881036, 881037	EXP SPA EU PURESEAL LT