Annex 8

ข้อกำหนดเกี่ยวกับมาตรฐานข้อมูลสารเคมีที่ผลิตหรือนำเข้า
ในปริมาณตั้งแต่ 10 ตัน หรือมากกว่า

ใน Column ที่ 1 ของภาคผนวกนี้ เป็นข้อมูลความต้องการข้อมูลมาตรฐานที่กำหนดขึ้นสำหรับสารเคมีทุกตัวที่มีการผลิตหรือนำเข้าในปริมาณตั้งแต่ 10 ตันขึ้นไป สอดคล้องกับมาตรา 12(1)(c) โดยเฉพาะอย่างยิ่งข้อมูลที่ต้องการใน Column ที่ 1 ของภาคผนวกนี้เป็นส่วนที่เพิ่มเข้าไปในส่วนของการร้องขอใน Column ที่ 1 ของภาคผนวกที่ 7 ส่วนข้อมูลอื่น ๆ ที่สัมพันธ์กันด้าน เคมีกายภาพ พิษวิทยา และนิเวศพิษวิทยานั้นก็สามารถนำมาใช้ในการจัดหาได้ ส่วนใน Column ที่ 2 ของภาคผนวกนี้ เป็นรายการกฎที่เฉพาะของข้อกำหนดมาตรฐานที่อาจจะได้รับการยกเว้นซึ่งถูกแทนที่ด้วยข้อมูลอื่น ๆ โดยถูกจัดหามาในขั้นตอนที่ต่างกันหรือนำไปใช้ในทางอื่น ๆ ถ้าสภาวะต่าง ๆ อยู่ภายใต้ Column ที่ 2 ของภาคผนวกนี้ อนุญาตให้มีการนำไปใช้ได้ ในการนำข้อกำหนดไปใช้นั้นผู้จดทะเบียนควรจะมีความชัดเจนมีความเป็นจริงและมีเหตุผลภายใต้ความเหมาะสมในเอกสารการจดทะเบียน

ในการเพิ่มเติมข้อกำหนดที่จำเพาะนี้ ผู้จดทะเบียนอาจจะใช้ข้อกำหนดมาตรฐานที่มีอยู่ใน Column ที่ 1 ของภาคผนวกนี้ได้ โดยต้องให้สอดคล้องกับกฎทั่วไปในภาคผนวก 11 โดยในทางที่ดีควรมีเหตุผลที่ชัดเจนในการตัดสินใจใช้ข้อมูลมาตรฐานอย่างเหมาะสมในการจดทะเบียนเอกสารโดยอ้างถึงกฎเฉพาะใน column ที่ 2 หรือในภาคผนวก 11

ก่อนที่การทดสอบใหม่ ๆ จะถูกนำออกมากำหนดรายละเอียดของคุณสมบัติในภาคผนวกนี้ ข้อมูล in vitro ข้อมูล in vivo ข้อมูลจาก (Q)SARs และข้อมูลจากสารเคมีที่สัมพันธ์กัน (read-across approach) ที่หามาได้ทั้งหมดควรที่จะประเมินเป็นอันดับแรก การทดสอบกับ in vivo ด้วยสารเคมีกัดกร่อนที่ระดับความเข้มข้น/ปริมาณ ที่ทำให้เกิดการเกิดการกัดกร่อนควรที่จะหลีกเลี่ยง โดยก่อนการทดสอบควรนำคำแนะนำในภาคผนวกนี้ไปศึกษา

8. TOXICOLOGICAL INFORMATION

COLUMN 1 STANDARD INFORMATION REQUIRED	COLUMN 2 SPECIFIC RULES FOR ADAPTATION FROM COLUMN 1
8.1. Skin irritation	
8.1.1. *In vivo* skin irritation	8.1.1. The study does not need to be conducted if: — the substance is classified as corrosive to the skin or as a skin irritant, or — the substance is a strong acid (pH ≤ 2,0) or base (pH ≥ 11,5), or — the substance is flammable in air at room temperature, or — the substance is classified as very toxic in contact with skin, or — an acute toxicity study by the dermal route does not indicate skin irritation up to the limit dose level (2 000 mg/kg body weight).
8.2. Eye irritation	
8.2.1. *In vivo* eye irritation	8.2.1. The study does not need to be conducted if: — the substance is classified as irritating to eyes with risk of serious damage to eyes, or — the substance is classified as corrosive to the skin and provided that the registrant classified the substance as eye irritant, or — the substance is a strong acid (pH ≤ 2,0) or base (pH ≥ 11,5), or — the substance is flammable in air at room temperature.
8.4. Mutagenicity	
8.4.2. *In vitro* cytogenicity study in mammalian cells or *in vitro* micronucleus study	8.4.2. The study does not usually need to be conducted — if adequate data from an *in vivo* cytogenicity test are available, or — the substance is known to be carcinogenic category 1 or 2 or mutagenic category 1, 2 or 3.
8.4.3. *In vitro* gene mutation study in mammalian cells, if a negative result in Annex VII, Section 8.4.1. and Annex VIII, Section 8.4.2.	8.4.3. The study does not usually need to be conducted if adequate data from a reliable *in vivo* mammalian gene mutation test are available. 8.4. Appropriate *in vivo* mutagenicity studies shall be considered in case of a positive result in any of the genotoxicity studies in Annex VII or VIII.
8.5. Acute toxicity	8.5. The study/ies do(es) not generally need to be conducted if: — the substance is classified as corrosive to the skin. In addition to the oral route (8.5.1), for substances other than gases, the information mentioned under 8.5.2 to 8.5.3 shall be provided for at least one other route. The choice for the second route will depend on the nature of the substance and the likely route of human exposure. If there is only one route of exposure, information for only that route need be provided.
8.5.2. By inhalation	8.5.2. Testing by the inhalation route is appropriate if exposure of humans via inhalation is likely taking into account the vapour pressure of the substance and/or the possibility of exposure to aerosols, particles or droplets of an inhalable size.
8.5.3. By dermal route	8.5.3. Testing by the dermal route is appropriate if: (1) inhalation of the substance is unlikely; and (2) skin contact in production and/or use is likely; and (3) the physicochemical and toxicological properties suggest potential for a significant rate of absorption through the skin.

COLUMN 1 STANDARD INFORMATION REQUIRED	COLUMN 2 SPECIFIC RULES FOR ADAPTATION FROM COLUMN 1
8.6. Repeated dose toxicity	
8.6.1. Short-term repeated dose toxicity study (28 days), one species, male and female, most appropriate route of administration, having regard to the likely route of human exposure.	8.6.1. The short-term toxicity study (28 days) does not need to be conducted if: — a reliable sub-chronic (90 days) or chronic toxicity study is available, provided that an appropriate species, dosage, solvent and route of administration were used, or — where a substance undergoes immediate disintegration and there are sufficient data on the cleavage products, or — relevant human exposure can be excluded in accordance with Annex XI Section 3. The appropriate route shall be chosen on the following basis: Testing by the dermal route is appropriate if: (1) inhalation of the substance is unlikely; and (2) skin contact in production and/or use is likely; and (3) the physicochemical and toxicological properties suggest potential for a significant rate of absorption through the skin. Testing by the inhalation route is appropriate if exposure of humans via inhalation is likely taking into account the vapour pressure of the substance and/or the possibility of exposure to aerosols, particles or droplets of an inhalable size. The sub-chronic toxicity study (90 days) (Annex IX, Section 8.6.2) shall be proposed by the registrant if: the frequency and duration of human exposure indicates that a longer term study is appropriate; and one of the following conditions is met: — other available data indicate that the substance may have a dangerous property that cannot be detected in a short-term toxicity study, or — appropriately designed toxicokinetic studies reveal accumulation of the substance or its metabolites in certain tissues or organs which would possibly remain undetected in a short-term toxicity study but which are liable to result in adverse effects after prolonged exposure. Further studies shall be proposed by the registrant or may be required by the Agency in accordance with Article 40 or 41 in case of: — failure to identify a NOAEL in the 28 or the 90 days study, unless the reason for the failure to identify a NOAEL is absence of adverse toxic effects, or — toxicity of particular concern (e.g. serious/severe effects), or — indications of an effect for which the available evidence is inadequate for toxicological and/or risk characterisation. In such cases it may also be more appropriate to perform specific toxicological studies that are designed to investigate these effects (e.g. immunotoxicity, neurotoxicity), or — the route of exposure used in the initial repeated dose study was inappropriate in relation to the expected route of human exposure and route-to-route extrapolation cannot be made, or — particular concern regarding exposure (e.g. use in consumer products leading to exposure levels which are close to the dose levels at which toxicity to humans may be expected), or — effects shown in substances with a clear relationship in molecular structure with the substance being studied, were not detected in the 28 or the 90 days study.
8.7. Reproductive toxicity	
8.7.1. Screening for reproductive/developmental toxicity, one species (OECD 421 or 422), if there is no evidence from available information on structurally related substances, from (Q)SAR estimates or from *in vitro* methods that the substance may be a developmental toxicant	8.7.1. This study does not need to be conducted if: — the substance is known to be a genotoxic carcinogen and appropriate risk management measures are implemented, or — the substance is known to be a germ cell mutagen and appropriate risk management measures are implemented, or — relevant human exposure can be excluded in accordance with Annex XI section 3, or — a pre-natal developmental toxicity study (Annex IX, 8.7.2) or a two-generation reproductive toxicity study (Annex IX, Section 8.7.3) is available. If a substance is known to have an adverse effect on fertility, meeting the criteria for classification as Repr Cat 1 or 2: R60, and the available data are adequate to support a robust risk assessment, then no further testing for fertility will be necessary. However, testing for development toxicity must be considered. If a substance is known to cause developmental toxicity, meeting the criteria for classification as Repr Cat 1 or 2: R61, and the available data are adequate to support a robust risk assessment, then no further testing for developmental toxicity will be necessary. However, testing for effects on fertility must be considered. In cases where there are serious concerns about the potential for adverse effects on fertility or development, either a pre-natal developmental toxicity study (Annex IX, Section 8.7.2) or a two-generation reproductive toxicity study (Annex IX, Section 8.7.3) may be proposed by the registrant instead of the screening study.

COLUMN 1 STANDARD INFORMATION REQUIRED	COLUMN 2 SPECIFIC RULES FOR ADAPTATION FROM COLUMN 1
8.8. Toxicokinetics	
8.8.1. Assessment of the toxicokinetic behaviour of the substance to the extent that can be derived from the relevant available information	

9. ECOTOXICOLOGICAL INFORMATION

COLUMN 1 STANDARD INFORMATION REQUIRED	COLUMN 2 SPECIFIC RULES FOR ADAPTATION FROM COLUMN 1
9.1.3. Short-term toxicity testing on fish: the registrant may consider long-term toxicity testing instead of short-term.	9.1.3. The study does not need to be conducted if: — there are mitigating factors indicating that aquatic toxicity is unlikely to occur, for instance if the substance is highly insoluble in water or the substance is unlikely to cross biological membranes, or — a long-term aquatic toxicity study on fish is available. Long-term aquatic toxicity testing as described in Annex IX shall be considered if the chemical safety assessment according to Annex I indicates the need to investigate further effects on aquatic organisms. The choice of the appropriate test(s) will depend on the results of the chemical safety assessment. The long-term aquatic toxicity study on fish (Annex IX, Section 9.1.6) shall be considered if the substance is poorly water soluble.
9.1.4. Activated sludge respiration inhibition testing	9.1.4. The study does not need to be conducted if: — there is no emission to a sewage treatment plant, or — there are mitigating factors indicating that microbial toxicity is unlikely to occur, for instance the substance is highly insoluble in water, or — the substance is found to be readily biodegradable and the applied test concentrations are in the range of concentrations that can be expected in the influent of a sewage treatment plant. The study may be replaced by a nitrification inhibition test if available data show that the substance is likely to be an inhibitor of microbial growth or function, in particular nitrifying bacteria.
9.2. Degradation	9.2. Further degradation testing shall be considered if the chemical safety assessment according to Annex I indicates the need to investigate further the degradation of the substance. The choice of the appropriate test(s) will depend on the results of the chemical safety assessment.
9.2.2. Abiotic	
9.2.2.1. Hydrolysis as a function of pH.	9.2.2.1. The study does not need to be conducted if: — the substance is readily biodegradable, or — the substance is highly insoluble in water.
9.3. Fate and behaviour in the environment	
9.3.1. Adsorption/desorption screening	9.3.1. The study does not need to be conducted if: — based on the physicochemical properties the substance can be expected to have a low potential for adsorption (e.g. the substance has a low octanol water partition coefficient), or — the substance and its relevant degradation products decompose rapidly.