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ISOPA interpretation on selection of Use Descriptors:

We refer to the Guidance on Information requirements and Chemical Safety Assessment (CSA), Chapter R12 – Use Descriptor System Version 3.0, December 2015


[Link: https://echa.europa.eu/documents/10162/13632/information_requirements_r12_en.pdf]

Sectors of Use [SU]

1. There are 4 basic Life Cycle Stages to which a use can be assigned, being manufacture, formulation and re-packing, end-use and (article)service life. Each use has to be assigned to one of the life cycle stages. A use at industrial site, a wide spread use by professional workers or a consumer use can be an end use and an end use when the substance has reacted or has become part of an article or has completely been released via waste water, air or it is contained in waste from this use.
2. According to the *Guidance on Information requirements and Chemical Safety Assessment (CSA), Chapter R12 – Use Descriptor System Version 3.0, December 2015* Section R.12.4.2.3 Market description, there is no obligation to use SU's for each of the uses and to avoid to miss certain SU's for certain uses and to be non-exhaustive, no SU have been assigned for the uses.

Process Categories [PROC]

1. **PROC 2, PROC 3 and PROC 4** are normally intended for manufacturing chemical products and not for manufacturing articles. However, ISOPA believes that these PROCs represent at best the reflection of typical PU processes, e.g. occasional interventions of enclosed panel production [**PROC 2**], closed molding [**PROC 2 or 3**], open molding or mainly mechanical and automated cleaning activities that are undertaken in predominantly closed systems/equipment [**PROC 4**] processes manufacturing or mechanical/automated but also **manual cleaning activities** that are undertaken in predominantly semi-closed systems/equipment.
2. **PROC 5** related to mixing and blending in batch processes for formulation of preparations and articles (multistage and/or significant contact). ISOPA regarded PROC 5 as representative for mixing processes, where significant exposure could occur, e.g. open mixing processes, **cleaning activities** (mainly mechanical/automated, but can be manual), that are predominantly undertaken in semi-open to open systems/equipment (e.g. **cleaning solvent** are mixed in a semi tight vessel/day tank or flushing of mixing heads in a semi open system).
3. **PROC 7** is related to industrial spraying activities. These activities can occur in a closed environment in closed well ventilated cabinets, e.g. for spraying adhesives on a substrate. It is also regarded applicable for spraying MDI on a substrate in a partially enclosed setting where very efficient ventilation is used, e.g. spraying on a stream of particles as is used sometimes for dry blending systems for the production of wooden boards. Finally, it is also regarded applicable for cleaning areas where particles could be coated with MDI by the use of high

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pressure. This cleaning technique occurs when vacuum cleaning techniques fail to clean properly in difficult to reach locations. The technique will create airborne particles coated with MDI and can therefore be regarded as similar to a spraying activity, although the percentage of MDI on these particles is typically quite low (<10% on dry weight)


4. **PROC 10** is related to rolling and brushing activities. These is considered suitable for low energy spreading activities such as using One Component Foam for insulating small cavities, windows at professional level, for cleaning surfaces contaminated with non fully cured low residual MDI containing particles, etc. This PROC is also used to cover manual cleaning activities with cloths, brushes, paper or towels.

5. **PROC 12** related to the use of blowing agents forwarded by trade associations or individual customers is not considered as relevant for the ISOPA end uses since the ISOPA end uses only cover MDI/TDI/polyol substances, excluding other additives, such as blowing agents. **PROC 12** forwarded by trade associations or individual customers for request to be included as part of ISOPA intended use is considered not relevant and pose no obligation to ISOPA members to adopt **PROC 12** in the ISOPA use descriptors.

6. **PROC 15** related to laboratory activities is considered to be relevant for all PU applications at **industrial level**.

7. **PROC 19** related to intended and intimate contact and forwarded by trade associations or individual customers is not considered as an intended use at industrial level or professional level, sine this PROC is intended for uses where manual contact with substances is considered as intentional or general practice, e.g. hair dresser, artists working with clay. For manual activities **PROC 5** [“mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)”] has been regarded as representative for these exposure scenarios. **PROC 19** forwarded by trade associations or individual customers for request to be included as part of intended use will not be considered as intended use in the ISOPA use descriptors and pose no obligation to ISOPA members to adopt **PROC 19** in the ISOPA use descriptors.

8. **PROC 21** at **industrial level or professional level** related to low energy manipulation of substances bound in other materials and/or articles. ISOPA regards **PROC 21** applicable for post foaming/curing handling activities such as demoulding, trimming, manual cutting etc. ISOPA regards **PROC 21** as NOT applicable for fully cured PU products. ISOPA regards fully cured PU products as products which are 24 hours old post production and/or PU products which are no longer hot or sticky or otherwise proved that residual monomeric diisocyanates do not pose a risk. Fully cured products do not require exposure scenarios. **PROC 21** forwarded by trade associations or individual customers for request to be included as part of intended use for scenarios including fully cured PU products will not be considered as intended use in the ISOPA use descriptors and pose no obligation to ISOPA members to adopt **PROC 21** for these uses in the ISOPA use descriptors.

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Automatic cutting operations typically occurring immediately after foaming/pressing are considered to be exposure scenario's covered under **PROC 2**, **PROC 3** or **PROC 4** since workers are believed only occasionally to be located at those areas.

- ISOPA regards **PROC 24**, high energy work-up like sawing or milling activities of massive metals or substances bound in materials and/or articles and possibly resulting in exposure to dusts containing very low residual amount of MDI due to the incompleteness of curing process. High energy cutting is only applied for cutting hard surfaces and this is a scenario applicable for ES 9 where wooden boards for which MDI has been used as a bonding agent MDI PROC 24 is also applied for cleaning blenders/vessels/containers where the MDI has become solid and hammering techniques are required for cleaning purposes. These activities normally occur on weekly to monthly basis. This activity can occur in manufacturing (ES1) or in Composite Wood facilities (ES9).

Article Categories [AC]

- Following the ECHA guidance of the Use Descriptor System [R12] **Article Categories** are only relevant when the **service life** of article is of relevance for exposure. Exposure during service life is considered relevant when the substance is intended to be released from an article or when the substance is still present at levels > 0.1% in article with no intended release.

Based on current available data, ISOPA does not consider both conditions relevant for fully cured PU products because the substances covered [MDI, TDI, and polyols] are chemically reacted upon use and are not becoming part of an article and therefore are no longer available for further life cycle steps, i.e. consumer/worker service life cycle stage, or emission to the environment.


For this reason, **Article Categories** are not used. **Article Categories** forwarded by association or customers do not pose an obligation to ISOPA members to adopt these in the ISOPA use descriptors. Unless it can be demonstrated that PU articles are produced with intended release of substances being part of that article.

Product categories [PC]:

- Following, *the Guidance on Information requirements and Chemical Safety Assessment (CSA), Chapter R12 – Use Descriptor System Version 3.,0 December 2015* for consumer uses PC are required.
- PC 1 Adhesives and Sealants have been assigned to 1 and 2 Component adhesives, glues, sealants and insulation foams and PC9a has been assigned to the 2 Component roof & gutter repair products.

Environmental release categories [ERC]:

- ERC 5:** ERC 5 describes industrial use of substances in articles with a specific function and substances remaining in the article after having been used as processing aids for some PU applications like Flexible Foam, Rigid foam, elastomers and TPU and part of other PU

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composites applications, MDI/TDI/polyols do not have a specific function, such as e.g. a fire retardant. For the other applications MDI/TDI has a particular function as a binding/curing agent and can be regarded in some occasions as processing aid.

2. **ERC 6a:** ERC6a describes the industrial use of a substance resulting in manufacturing another substance. ISOPA regards it as possible that MDI/TDI/polyol can be used by formulators or resin manufacturers whereby they are transformed to other substances and whereby the original MDI/TDI/polyol are below 0.1% of the final material/product/substance.
3. **ERC 12a:** ERC12a describes the (low) release of substances (intended or not) from materials or articles as a result of processing these articles/materials by workers. Typical operations are cutting, grinding etc. related to PROC21, PROC24 and PROC25. Since a PU product is fully cured, i.e. 24 hours old, not hot or sticky anymore [see position on PROC2, PROC21 and PROC24 and Article Categories above], it is regarded as an article to be used by consumers and not workers, therefore this ERC12a is regarded as not applicable. PROC21 is related to not fully cured PU products and is still in the process of becoming an article and therefore not linked to ERC12a.
4. **ERC 4:** ERC 4 has been identified to describe the cleaning activities for MDI contaminated equipment/surfaces, using aprotic polar solvents for these activities at the industrial level based on the decision tree for ERC assignment for the life cycle stage “use at industrial site” of the *Guidance on Information requirements and Chemical Safety Assessment (CSA), Chapter R12 – Use Descriptor System Version 3.,0 December 2015.*
5. **ERC 8a and ERC 8d:** ERC 8a and 8d have been identified for to describe the cleaning activities for MDI contaminated equipment/surfaces, excluding the use of aprotic polar solvents for these activities at the industrial and professional level based on the decision tree for ERC assignment for the life cycle stage “widespread use by professional workers” of the *the Guidance on Information requirements and Chemical Safety Assessment (CSA), Chapter R12 – Use Descriptor System Version 3.,0 December 2015.*

Downstream Associations are requested to contact ISOPA In case of discrepancies with use descriptors to ensure continued alignment with downstream.