

## Category Identity Profile

*This CIP represents the boundary substance compositions in the Joint Registrations for substances in **Category B** under the EU legislation REACH<sup>1</sup>. It is included in the Lead Registrant dossiers that are submitted to ECHA<sup>2</sup>. For a valid Joint Registration, the joint registrants' own composition needs to fit within the boundaries (concentration ranges) of the constituents and purity described here. For further details, see the section on Category Identity Profile and Boundary Composition at the end of this document.*

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### Description of composition

The substances within this category consist predominantly of C8, C12, C16 and/or C20 hydrocarbons.

### State / form

Liquid

### Manufacturing Process

Butylene Oligomers category contains hydrocarbon streams obtained by the oligomerisation of butylenes. The substances within this category consist predominantly of C8, C12, C16 and/or C20 hydrocarbons. The category stream components boil between 30 and 350 °C and the streams contain less than 0.1% butadiene.

### Generic Description of the Substance Phys-Chem Properties

It is reasonable to assume that the phys-chem and environmental fate properties of the category members will be similar and likely to change in a relatively uniform manner, as the carbon number increases consistently. It can therefore be assumed that streams meeting the applicability domain will behave in a similar manner and that the use of read-across is valid.

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<sup>1</sup> REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

<sup>2</sup> European Chemicals Agency. [📖](#)

## Constituents

The following constituents were selected based on the category composition data as reported by the registrants. As per the ECHA UVCB guidance, constituents which are CMR and/or PBT above 0.1% and other constituents  $\geq 10\%$  are reported in the table below.

The concentration ranges shown in this table directly reflect the boundary composition submitted in the lead registrant's dossier.

Constituent \ EC Number	Typical Concentration	Concentration Range
Sum of C12 hydrocarbons	ca. 50 % w/w	0 - 100 % w/w
Sum of C16 hydrocarbons	ca. 50 % w/w	0 - 100 % w/w
Isomer of trimethyl-1-pentene	ca. 48.5 % w/w	0 - 97 % w/w
2,2,4-Trimethylpentane	ca. 48 % w/w	0 - 96 % w/w
2,4,4-Trimethylpent-1-ene	ca. 37.5 % w/w	0 - 75 % w/w
Isomer of trimethyl-2-pentene	ca. 18 % w/w	0 - 36 % w/w
2,4,4-Trimethylpent-2-ene	ca. 10.5 % w/w	0 - 21 % w/w
C4 Olefin	ca. 2.5 % w/w	0 - 5 % w/w
C11 Olefin	ca. 8.5 % w/w	0 - 17 % w/w
C14 Olefin	ca. 8 % w/w	0 - 16 % w/w
C13 Olefin	ca. 6.5 % w/w	0 - 13 % w/w
C10 Olefin	ca. 5.5 % w/w	0 - 11 % w/w
C8 Olefin	ca. 50 % w/w	0 - 100 % w/w
C12 Olefin	ca. 50 % w/w	0 - 100 % w/w
C16 Olefin	ca. 50 % w/w	0 - 100 % w/w
C20 Olefin	ca. 50 % w/w	0 - 100 % w/w
C24 Olefin	ca. 5 % w/w	0 - 10 % w/w
C28 Olefin	ca. 2.5 % w/w	0 - 5 % w/w
<b>PIONA</b>		
Paraffins	ca. 5.0 % (w/w)	0 – 10%
Isoparaffins	ca. 12.5 % (w/w)	0 – 96%

Constituent \ EC Number	Typical Concentration	Concentration Range
Olefins	ca. 70 % (w/w)	0 – 100%
Naphthenics	ca. 0.5 % (w/w)	0 – 1%
Aromatics	ca. 0 % (w/w)	0 %

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## Category Identity Profile and Boundary Composition

This Category Identity Profile has been produced following the currently available ECHA guidance<sup>3</sup> by the Analytical Working Group, a Working Group of the LOA Technical Steering Committee, following consultation with Registrants.

The CIP defines the compositional boundaries of the substance that is to be (or has been) registered and consequently the substance for which intrinsic hazard data is submitted, as defined by Annexes VII-X of REACH. It is a document usually agreed between the registrants and potential registrants.

With the introduction of IUCLID 6<sup>4</sup> in April 2016 it became necessary for the Lead Registrant to enter the CIP details into Section 1.2 of IUCLID as the “boundary composition” of the registration prior to any new submission or spontaneous update. Failure to add it will cause rejection of the dossier when uploading into REACH IT.

The business rules of REACH IT also check that information is present which verify that minimum information is present: at least one constituent must be provided, and for each constituent, impurity and additive a reference substance with identifiers, and a concentration range must be given. For UVCB substances, a description of the starting material and process that defines the UVCB composition must be indicated. After submission, the information is displayed on the joint submission page so it can be seen by members of the Substance Information Exchange Forum (SIEF).

It is not necessary for joint registrants to report on boundary composition. However, joint registrants are required to enter their legal entity composition which is automatically checked against the substance boundary composition to ensure that the joint registrant’s composition fits into the boundary composition of the CIP.

If a joint registrant is outside the CIP and boundary composition, they need to state this in their dossier - details are given in the ECHA guidance.

If you have any question on this SIP please contact [sief.manager@loa-reach.com](mailto:sief.manager@loa-reach.com)

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<sup>3</sup> ECHA (2016) Guidance for identification and naming of substances under REACH and CLP June 2016 Draft Version Current link - [📖](#)

<sup>4</sup> The software used for producing dossiers for submission to ECHA under REACH. <https://iuclid6.echa.europa.eu/>