

LCID Example 2a - Introduction

1. Purpose of the example

The purpose of this example is to illustrate how the results of the “example 8” of the REACH Practical Guide¹ can be implemented into the main body of a Safety Data sheet (SDS). Like for the example in the guide, only the environmental part is taken into account for this representation. Please note that there is an SDS provided in parallel, which uses exactly the same content, but provides the information annexed to the SDS.

Be aware that some information has been added to the example (as compared to the guide) in order to improve the usefulness of the resulting SDS to the reader. To that end, PNECs of the Lead Component have been added to section 7.2. However, as there are no PNECs available for the remaining components that are hazardous to the environment, this does not impact the methodology used. Still the backup approach to determine the Lead Compound – using the classification of the components – has been applied.

2. Mixture information

2.1. Information on the mixture

Composition:	Cyclohexane >= 25 % - <= 50 % n-Hexane >= 1 % - <= 5 % Naphtha, hydrotreated light >= 10 % - <= 25 %
Classification of the mixture:	H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long-lasting effects.
Use of the mixture:	Formulation of consumer products

2.2. Hazardous substances entering in the composition of the mixture

Substance	PNEC(s)	CLP classification
Cyclohexane	freshwater: 0.207 mg/L marine water: 0.207 mg/L intermittent release: 0.207 mg/L sediment (freshwater): 3.627 mg/kg sediment (marine water): 3.627 mg/kg soil: 2.99 mg/kg STP: 3.24 mg/L	Aquatic Acute 1 Aquatic Chronic 1 M-factor acute: 1 M-factor chronic: 1 H400, H410
n-Hexane	No PNECs available	Aquatic Chronic 2 H411
Naphtha, hydrotreated light	No PNECs available	Aquatic Chronic 2 H411

¹ REACH Practical Guide on Safe Use Information for Mixtures under REACH – The Lead Component Identification (LCID) Methodology
<http://www.cefic.org/Documents/IndustrySupport/REACH-Implementation/Guidance-and-Tools/REACH-Practical-Guide-on-Safe-Use-Information-for-Mixtures-under-REACH-The-LCID-Methodology.pdf>

3. Outcome of the LCID methodology

Lead component environment:	Cyclohexane
Lead component ozone layer hazard:	N.A. – because no hazard identified
Re-calculated M_{safe}:	3945.7 kg/d

4. OC and RMM associated to Lead Component for the selected use

In “example 8” of the guide, no explicit Risk Management Measures (RMMs) are provided. To improve the usability of the current exercise, the generic measures stated there (“RM1”, “RM2”, ...) have been replaced by actual RMMs including related efficiencies of those measures. Please note that this is made-up information, which does not necessarily reflect a real situation.

5. Consolidated OC/RMM for the mixture

There is no need for consolidation in this example. Like for all cases where the LCID is used to derive safe use information for the environmental part, the Operational Conditions (OCs) and RMMs of the Lead component are transferred to the SDS of the mixture as they are.

Example 2a - Safety Data Sheet content

Extract of relevant safe use information derived by application of the LCID methodology

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

ExpolInfoEmbed

Chemical name: ABC
INDEX-Number: 123-456-78-9
CAS Number: 123-45-6

1.2. Relevant identified uses of the substance or mixture and uses advised against

Formulation of consumer products

1.3. Details of the supplier of the safety data sheet

Company:
LCID Ltd
Europe

Telephone: +xx xxx xx-x
E-mail address: info@lcid-ltd.com

1.4. Emergency telephone number

International emergency number:
Telephone: +xx xxx xx-x

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

Aquatic Acute 1
Aquatic Chronic 1

H400, H410

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elements

According to Regulation (EC) No 1272/2008 [CLP]

Pictogram:



Signal Word:
Warning

Hazard Statement:

- H400
- H410
- Very toxic to aquatic life..
- Very toxic to aquatic life with long-lasting effects.

Precautionary Statements (Prevention):

- P273
- Avoid release to the environment.

Precautionary Statements (Disposal):

- P501
- Dispose of contents/container to hazardous or special waste collection point.

2.3. Other hazards

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Chemical nature

Liquid material.

3.2. Mixtures

Cyclohexane

Content (W/W): $\geq 25\%$ - $\leq 50\%$	Aquatic Acute 1
CAS Number: 110-82-7	Aquatic Chronic 1
EC-Number: 203-806-2	M-factor acute: 1
INDEX-Number: 601-017-00-1	M-factor chronic: 1
	H400, H410

n-Hexane

Content (W/W): $\geq 1\%$ - $\leq 5\%$	Aquatic Chronic 2
CAS Number: 92112-69-1	H411
EC-Number: 295-570-2	

Naphtha, hydrotreated light

Content (W/W): $\geq 10\%$ - $\leq 25\%$

CAS Number: 8030-30-6

EC-Number: 232-443-2

INDEX-Number: 649-262-00-3

Aquatic Chronic 2

H411

SECTION 4: First-Aid Measures

SECTION 5: Fire-Fighting Measures

SECTION 6: Accidental Release Measures

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Control of exposure and risk management measures

- | | | |
|--------------------------|---|----------------------------------|
| • Emission factor air: | • 0.3% | <i>Lead compound information</i> |
| • Emission factor water: | • 1.0% | |
| • Emission factor soil: | • 0.0% | |
| • Remarks: | • Default values for the capacity of a Sewage Treatment Plant as well as for freshwater and marine dilution have been applied in the risk assessment for the use. | |

Exposure estimates and reference to its source

- | | | |
|------------------------------|--|--|
| • Assessment method: | • easyTRA, v4.0 | <i>Lead compound information & LCID output (Msafe product)</i> |
| • Maximum amount of safe use | • 3945.7 kg/d | |
| • Remarks: | • Risk from environmental exposure is driven by freshwater sediment. | |

7.2. Conditions for safe storage, including any incompatibilities

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

PNEC

Lead compound information

freshwater: 0.207 mg/l

marine water: 0.207 mg/l

intermittent release: 0.207 mg/l

sediment (freshwater): 3.627 mg/kg

sediment (marine water): 3.627 mg/kg

soil: 2.99 mg/kg

STP: 3.24 mg/l

Data refer to the lead component

8.2. Exposure controls

Personal protective equipment

General safety and hygiene measures

Environmental exposure controls

All appropriate measures must be taken to prevent the release of this product to the environment and to limit the dispersion of any release when it occurs.

- Treat air emissions to provide a typical removal efficiency of:
 - > 70%
 - Air treatment measures considered suitable are, e.g.:
 - Waste gas treatment by thermal oxidation
 - Treat wastewater (prior to discharge to sewage treatment plant) to provide the required removal efficiency of:
 - > 30%
 - Wastewater treatment measures considered suitable are, e.g.:
 - Activated Carbon Adsorption
- Lead compound information*

SECTION 9: Physical and Chemical Properties

SECTION 10: Stability and Reactivity

SECTION 11: Toxicological Information

SECTION 12: Ecological Information

SECTION 13: Disposal Considerations

SECTION 14: Transport Information

SECTION 15: Regulatory Information

SECTION 16: Other Information

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