

Safe use information in the extended Safety Data Sheet for a mixture Example 1

Safe use information annexed to the mixture SDS of a paint “My Super Paint” for industrial use

This example is derived from the ES of two ingredient substances by application of the Lead Component Identification Method (LCID) and subsequent consolidation of the information.

The mixture is classified for systemic hazards (STOT RE 2), aquatic hazards (Aquatic Chronic 3) and skin/eye irritation. It contains two organic solvents at 20% and 25% with relatively high systemic inhalation DNELs (150 and 220 mg/m³). Both solvents fall into the medium volatility band of the ECETOC TRA exposure assessment tool.

In this example, the main body of the mixture safety data sheet is limited to section 1-3 and 7/8.

The format of the annex corresponds to the format of substance ES for communication as generated by Chesar, with slight modifications. The Annex to the mixture SDS includes all the various contributing activities that could be relevant for the industrial use of a paint.

The example will be referred to in the workshop breakout session 1. Annex 1 of the document illustrates how safe-use advice for mixtures may look like in future. Your feedback on the clarity and appropriateness of the information provided is welcome. Certain section from the core body of the SDS are also included in the example to enable understanding of the hazards of the example mixture. You may also want to compare the more traditional content in sections 7 and 8 of the SDS with the advice provided in the Annex.

Disclaimer

The content of section 7 and 8 and the content of the Annex are generated from real life examples, and do not represent best practice. The example serves for illustration purposes in the context of the second workshop on REACH Review Action 3 on 23/24 September, 2019 in Helsinki. It must not be used outside that context.

Source: Example 5a developed by the Cefic/VCI Mixture Task Force under the ENES 4.2 project (Draft Report 9/2019)

SAFETY DATA SHEET

My Super Paint



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

1.1 Product identifier

Product name : My Super Paint

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

Product description : Coatings and paints, thinners, paint removers (PC9a)

1.3 Details of the supplier of the safety data sheet

My company, Maalitie 1, FI-00370 HELSINKI, FINLAND. Tel. +358 9 000 000.

e-mail address of person responsible for this SDS : prod-safe@mycompany.com

National contact

My company, Maalitie 1, FI-00370 HELSINKI, FINLAND. Tel. +358 9 000 000

1.4 Emergency telephone number

Telephone number : +358 9 000 000; Opening hours: MON-FRI, 7am – 6pm.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

Flam. Liq. 3, H226

Skin Irrit. 2, H315

Eye Irrit. 2, H319

STOT SE 3, H335

STOT RE 2, H373

Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :**Signal word** : Warning

Hazard statements :

- H226 - Flammable liquid and vapour.
- H319 - Causes serious eye irritation.
- H315 - Causes skin irritation.
- H335 - May cause respiratory irritation.
- H373 - May cause damage to organs through prolonged or repeated exposure.
- H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

General : Not applicable.My Super Paint **Version** : 3**Label No** : XXXX**Date of issue**/**Date of revision**: 18/04/2018 **Date of previous issue**

: 22/06/2016

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SECTION 2: Hazards identification

Prevention	: P280 - Wear protective gloves. Wear eye or face protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P273 - Avoid release to the environment.
Response	: P304 + P312 - IF INHALED: Call a POISON CENTER or physician if you feel unwell. P303 + P353 - IF ON SKIN (or hair): Rinse skin with water or shower.
Storage	: P403 - Store in a well-ventilated place.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	: Solvent naphtha (petroleum), light aromatic Mixed xylene
Supplemental label elements	:
Annex XVII - Restrictions	:

2.3 Other hazards

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Solvent naphtha (petroleum), light Aromatic	EC: 918-668-5 CAS: 64742-95-6 Index: 649-356-00-4 Registration: 01-2119455851-35-XXXX	20	Flam. Liq. 3, H226 STOT SE 3, H335 (Respiratory tract irritation) STOT SE 3, H336 (Narcotic effects) Asp. Tox. 1, H304 Aquatic Chronic 2, H411	[1]
Mixed xylene	EC: 905-588-0 CAS: 1330-20-7 Registration: 01-2119488216-XX-XXXX	25	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 (Respiratory tract irritation) STOT RE 2, H373 (Hearing organs) Asp. Tox. 1, H304 See Section 16 for the full text of the H statements declared above.	[1] [2]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- 1] Substance classified with a health or environmental hazard
- 2] Substance with a workplace exposure limit
- 3] Substance meets the criteria for PBT according to Regulation EC No 1907/2006, Annex XIII
- 4] Substance meets the criteria for vPvB according to Regulation EC No 1907/2006, Annex XIII
- 5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

SECTION 5: Firefighting measures

SECTION 6: Accidental release measures

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Xylene

EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin.

STEL: 441 mg/m³ 15 minutes.

TWA: 50 ppm 8 hours.

TWA: 220 mg/m³ 8 hours.

STEL: 100 ppm 15 minutes.

Ethylbenzene

EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin.

STEL: 552 mg/m³ 15 minutes.

STEL: 125 ppm 15 minutes.

TWA: 100 ppm 8 hours.

TWA: 441 mg/m³ 8 hours.

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs components:

WORKER:

Solvent Naphtha (light, aromatic):	DNEL inhalation long term/systemic:	150 mg/m ³
	DNEL dermal long term/systemic:	25 mg/kg BW/day
Mixed xylene:	DNEL inhalation long term/systemic:	221 mg/m ³
	DNEL inhalation acute/systemic:	442 mg/m ³
	DNEL inhalation long term/local:	221 mg/m ³
	DNEL inhalation acute/local:	442 mg/m ³
	DNEL dermal long term/systemic:	212 mg/kg BW/day

PNECs:

Solvent Naphtha (light aromatic):	Not available
Mixed xylene:	PNEC Fresh Water: 0.327 mg/L PNEC Marine Water: 0.327 mg/L PNEC STP: 6.58 mg/L PNEC Fresh Water sediment: 12.46 mg/kg dwt PNEC Marine Water sediment: 12.46 mg/kg dwt PNEC Soil: 2.31 mg/kg dwt

8.2 Exposure controls

Appropriate engineering controls

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation and other engineering controls such as automation to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. Observe operational conditions described in the annexed safe use information.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with EU Standard EN166 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Wear goggles for use against liquids and gas. Wear full face shield if splashes are likely to occur

Skin protection

Hand protection

Chemical-resistant, impervious gloves complying with EU Standard EN374 should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Recommendations: Wear suitable gloves tested to EN374

➤ 8 h (breakthrough time): Viton^R > 0.3 mm

Wash hands before breaks and immediately after handling the product.

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Refer to European Standard EN 14605 for further information on material and design requirements and test methods. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static and flame retardant overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Filter type: A
Spray application Filter type: AP
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Observe operational conditions and risk management measures described in the annexed safe use information.

DISCLAIMER

This partial eSDS is based on made-up information. This document aims to be used only as an example. It does not contain fully accurate information. The author does not accept any liability with regard to (i) the completeness of this example and its compliance with the obligations imposed under the REACH Regulation, nor (ii) the use that may be made of the information contained in this document.

Annex 1

SAFE USE INFORMATION FOR MIXTURE

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ES 1 – Use at industrial sites; Coatings and Paints, Thinners, paint removers (PC 9a)

P.9

1. ES 1: Use at industrial sites; Coatings and Paints, Thinners, paint removers (PC 9a)

1.1. Title section

ES name: Industrial coating

Product category: Coatings and Paints, Thinners, paint removers (PC 9a)

Environment	
1: Industrial coating	ERC 4
Worker	
2: Storage	PROC 1
3: Film formation - force drying, stoving and other technologies	PROC 2
4: Film formation - air drying	PROC 4
5: Preparation of material for application; Mixing operations; Open systems	PROC 5
6: Preparation of material for application; Mixing operations; Closed systems	PROC 5
7: Spraying; Automated task	PROC 7
8: Spraying; Manual	PROC 7
9: Drum/batch transfers; Transfer from/pouring from containers	PROC 8a
10: Material transfers	PROC 8b
11: Equipment cleaning and maintenance	PROC 28
12: Roller, spreader, flow application	PROC 10
13: Dipping, immersion and pouring	PROC 13
14: Material transfers; Drum/batch transfers; Transfer from/pouring from containers	PROC 9

1.2. Conditions of use affecting exposure

1.2.1. Control of environmental exposure: *Industrial coating* (ERC 4)

Daily amount per site <= 125 T/day of the mixture
Treat air emissions to provide a typical removal efficiency of 90%
Prevent discharge of undissolved substance to or recover from onsite wastewater; Consider technical advances and process upgrades (including automation) for the elimination of releases.
Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency $\geq 77.7\%$
Do not apply industrial sludge to natural soils; Sewage sludge should be incinerated, contained or reclaimed.

1.2.2. Control of worker exposure

Conditions of use applicable to all contributing scenarios

Covers use up to 8.0 h/day
Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour) ¹ .
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training; If skin contamination is expected to extend to other parts of the body, then these body parts should also be protected with impervious garments in a manner equivalent to those described for the hands; For further specification, refer to section 8 of the SDS.
Use suitable eye protection; For further specification, refer to section 8 of the SDS.
Assumes room temperature except for PROC 2: elevated process temperature up to 100.0 °C

¹ Note by ECHA: Based on recent work under ENES project 3.2, the more appropriate phrase would be: *Provide a good room ventilation (at least 3 air changes per hour).*

Specific conditions of use per contributing scenario

Contributing scenario	Specific conditions of use
Storage (PROC 1)	Store substance within a closed system.
Film formation - force drying, stoving and other technologies (PROC 2)	Handle substance within a closed system; Provide extract ventilation to points where emissions occur ² .
Film formation - air drying (PROC 4)	Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
Preparation of material for application; Mixing operations; Open systems (PROC 5)	Provide a good standard of controlled ventilation (5 to 15 air changes per hour) ³ .
Preparation of material for application; Mixing operations; Closed systems (PROC 5)	Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
Spraying; Automated task (PROC 7)	Carry out in a vented booth provided with laminar airflow.
Spraying; Manual (PROC 7)	Provide a good standard of controlled ventilation (5 to 15 air changes per hour). Wear suitable respiratory protection; Inhalation - minimum efficiency of 90.0 %; For further specification, refer to section 8 of the SDS.
Drum/batch transfers; Transfer from/to containers (PROC 8a)	Ensure material transfers are under containment or extract ventilation.
Material transfers (PROC 8b)	Ensure material transfers are under containment or extract ventilation.
Equipment cleaning and maintenance (PROC 28)	Drain down and flush system prior to equipment break-in or maintenance.
Roller, spreader, flow application (PROC 10)	Provide extract ventilation to points where emissions occur.
Dipping, immersion and pouring (PROC 13)	Provide a good standard of controlled ventilation (5 to 15 air changes per hour).
Material transfers; Drum/batch transfers; Transfer/pouring from/to containers (PROC 9)	Provide a good standard of controlled ventilation (5 to 15 air changes per hour).

² Note by ECHA: Based on recent work under ENES project 3.2, the more appropriate phrase would be: *Provide specifically designed and maintained LEV of at least 90% effectiveness (fixed capturing hood type, on-tool extraction or enclosing hood type)*

³ Note by ECHA: Based on recent work under ENES project 3.2, the more appropriate phrase would be: *Provide enhanced mechanical room ventilation (at least 5 air changes per hour).*