SAFETY DATA SHEET

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

1.1 Product identifier

Product name : P/C LACQUER SATIN

Product code : NM2502-0040

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

Material uses : Paint or paint related material.

: Industrial use only.

1.3 Details of the supplier of the safety data sheet

Sherwin-Williams Sweden AB
Box 2016, SE-195 02 Märsta, SWEDEN
Tel: +46 (0)381 261 00
Fax: +46 (0)381 261 99
info.sweden@sherwin.com

National contact

Sherwin-Williams (Ireland) Limited - Industrial
Woods Division Dublin
53 Robinhood Industrial Estate
Dublin 22 D22 PW99
Ireland
Phone: +353 1460 1445
irlinfo@sherwin.com

e-mail address of person responsible for this SDS : sweden.regulatory@sherwin.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : +353 1 809 2166 (08:00-22:00)

Supplier

Telephone number : +46 (0)381 261 00

Hours of operation : Weekdays, 08:00-16:30 CET

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. 2, H225
Skin Irrit. 2, H315
Eye Dam. 1, H318
STOT SE 3, H336

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

SECTION 2: Hazards identification

Hazard pictograms :



Signal word : Danger

Hazard statements : Highly flammable liquid and vapour.
Causes skin irritation.
Causes serious eye damage.
May cause drowsiness or dizziness.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing vapour. Wash thoroughly after handling.

Response : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage : Not applicable.

Disposal : Not applicable.

Hazardous ingredients : n-Butyl Acetate
N-Butanol

Supplemental label elements : Contains formaldehyde. May produce an allergic reaction. FOR INDUSTRIAL USE ONLY

Special packaging requirements

Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Product meets the criteria for endocrine disrupting properties according to Regulation (EC) No. 1907/2006. : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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

SECTION 3: Composition/information on ingredients

3.2 Mixture :

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
n-Butyl Acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≥10 - ≤25	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	-	[1] [2]
Ethanol	REACH #: 01-2119457610-43 EC: 200-578-6 CAS: 64-17-5 Index: 603-002-00-5	≥10 - ≤25	Flam. Liq. 2, H225 Eye Irrit. 2, H319	Eye Irrit. 2, H319: C ≥ 50%	[1] [2]

SECTION 3: Composition/information on ingredients

Acetone	REACH #: 01-2119471330-49 EC: 200-662-2 CAS: 67-64-1 Index: 606-001-00-8	≥10 - ≤25	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	-	[1] [2]
N-Butanol	REACH #: 01-2119484630-38 EC: 200-751-6 CAS: 71-36-3 Index: 603-004-00-6	≤13	Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	ATE [Oral] = 790 mg/kg	[1] [2]
Isobutylated Urea-Formaldehyde Polymer	CAS: 68002-18-6	≤10	Aquatic Chronic 4, H413	-	[1]
Isopropyl Alcohol	REACH #: 01-2119457558-25 EC: 200-661-7 CAS: 67-63-0 Index: 603-117-00-0	≤5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	-	[1] [2]
Reaction mass of Diethylene glycol dibenzoate, Dipropylene glycol dibenzoate and Triethylene glycol dibenzoate	REACH #: 01-2119535193-44	≤5	Aquatic Chronic 3, H412	-	[1]
Xylene, mixed isomers	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≤4.4	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304	ATE [Dermal] = 1100 mg/kg ATE [Inhalation (gases)] = 6700 ppm	[1] [2]
Iso-Butanol	REACH #: 01-2119484609-23 EC: 201-148-0 CAS: 78-83-1 Index: 603-108-00-1	≤2.4	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	-	[1] [2]
Ethyl Acetate	REACH #: 01-2119475103-46 EC: 205-500-4 CAS: 141-78-6 Index: 607-022-00-5	<1	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	-	[1] [2]
Toluene	REACH #: 01-2119471310-51 EC: 203-625-9 CAS: 108-88-3 Index: 601-021-00-3	≤0.3	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	-	[1] [2]
Formaldehyde (max.)	REACH #: 01-2119488953-20 EC: 200-001-8 CAS: 50-00-0 Index: 605-001-00-5	<0.1	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Muta. 2, H341 Carc. 1B, H350 EUH071	ATE [Oral] = 500 mg/kg ATE [Inhalation (gases)] = 100 ppm Skin Corr. 1B, H314: C ≥ 25% Skin Irrit. 2, H315: 5% ≤ C < 25%	[1] [2]

SECTION 3: Composition/information on ingredients

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

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

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

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.

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.
Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.
If splashed in the eyes, the liquid may cause irritation and reversible damage.
Ingestion may cause nausea, diarrhea and vomiting.
This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains formaldehyde. May produce an allergic reaction.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

SECTION 4: First aid measures

Specific treatments : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Recommended: alcohol-resistant foam, CO_2, powders, water spray or mist.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Hazardous combustion products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for firefighters

Special protective actions for fire-fighters : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.

Keep unnecessary and unprotected personnel from entering.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Preferably clean with a detergent. Avoid using solvents.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

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 : Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits.
In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.
Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.
Operators should wear antistatic footwear and clothing and floors should be of the conducting type.
Keep away from heat, sparks and flame. No sparking tools should be used.
Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Put on appropriate personal protective equipment (see Section 8).
Never use pressure to empty. Container is not a pressure vessel.
Always keep in containers made from the same material as the original one.
Comply with the health and safety at work laws.
Do not allow to enter drains or watercourses.
Information on fire and explosion protection
Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

7.2 Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations.
Notes on joint storage
Keep away from: oxidising agents, strong alkalis, strong acids.
Additional information on storage conditions
Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Care should be taken when handling emptied containers that have not been cleaned or rinsed out.

Contaminated absorbent material may pose the same hazard as the spilt product.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

Good housekeeping standards, regular safe removal of waste materials and regular maintenance of spray booth filters will minimise the risks of spontaneous combustion and other fire hazards.

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations.

SECTION 8: Exposure controls/personal protection

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).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
n-butyl acetate	**NAOSH (Ireland, 4/2024)** Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 50 ppm. OELV 8 hours: 241 mg/m³. OELV 15 minutes: 150 ppm. OELV 15 minutes: 723 mg/m³.
ethanol	**NAOSH (Ireland, 4/2024)** Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV 15 minutes: 1000 ppm.
acetone	**NAOSH (Ireland, 4/2024)** Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 500 ppm. OELV 8 hours: 1210 mg/m³.
butan-1-ol	**NAOSH (Ireland, 4/2024)** Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV 8 hours: 20 ppm.
propan-2-ol	**NAOSH (Ireland, 4/2024)** Absorbed through skin. Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV 8 hours: 200 ppm. OELV 15 minutes: 400 ppm.
xylene	**NAOSH (Ireland, 4/2024) [xylene]** Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 50 ppm. OELV 8 hours: 221 mg/m³. OELV 15 minutes: 100 ppm. OELV 15 minutes: 442 mg/m³.
2-methylpropan-1-ol	**NAOSH (Ireland, 4/2024)** Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV 8 hours: 150 ppm. OELV 8 hours: 700 mg/m³.
ethyl acetate	**NAOSH (Ireland, 4/2024)** Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 200 ppm. OELV 15 minutes: 400 ppm. OELV 15 minutes: 1468 mg/m³. OELV 8 hours: 734 mg/m³.
toluene	**NAOSH (Ireland, 4/2024)** Absorbed through skin. Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 50 ppm. OELV 8 hours: 192 mg/m³. OELV 15 minutes: 100 ppm. OELV 15 minutes: 384 mg/m³.
formaldehyde	**NAOSH (Ireland, 4/2024)** Carc 1B. Sensitiser. Notes: EU derived Occupational Exposure Limit Values OELV 8 hours: 0.3 ppm. OELV 15 minutes: 0.6 ppm. OELV 15 minutes: 0.738 mg/m³. OELV 8 hours: 0.37 mg/m³.

Biological exposure indices

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure indices
acetone	**NAOSH BGVs (Ireland, 1/2011)** BMGV: 50 mg/l, acetone [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases.
propan-2-ol	**NAOSH BGVs (Ireland, 1/2011)** BMGV: 40 mg/l, acetone [in urine]. Sampling time: end of shift at end of workweek.
xylene	**NAOSH BGVs (Ireland, 1/2011) [Xylene]** BMGV: 1.5 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases.
toluene	**NAOSH BGVs (Ireland, 1/2011)** BMGV: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases. BMGV: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases. BMGV: 0.02 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek.

Recommended monitoring procedures : 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.

: Regular monitoring of all work areas should be carried out at all times, including areas that may not be equally ventilated.

DNELs/DMELs

Product/ingredient name	Result
n-butyl acetate	**DNEL - Workers - Short term - Inhalation** 600 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 300 mg/m³ Effects: Local **DNEL - General population - Short term - Inhalation** 300 mg/m³ Effects: Local **DNEL - General population - Long term - Inhalation** 35.7 mg/m³ Effects: Local **DNEL - Workers - Long term - Dermal** 11 mg/kg Effects: Systemic **DNEL - Workers - Short term - Dermal** 11 mg/kg Effects: Systemic

SECTION 8: Exposure controls/personal protection

DNEL - General population - Long term - Dermal
6 mg/kg
Effects: Systemic

DNEL - General population - Short term - Dermal
6 mg/kg
Effects: Systemic

DNEL - General population - Long term - Oral
2 mg/kg
Effects: Systemic

DNEL - General population - Short term - Oral
2 mg/kg
Effects: Systemic

ethanol

DNEL - Workers - Short term - Inhalation
1900 mg/m³
Effects: Local

DNEL - Workers - Long term - Dermal
343 mg/kg
Effects: Systemic

DNEL - Workers - Long term - Inhalation
950 mg/m³
Effects: Systemic

DNEL - General population - Human via the environment - Short term - Inhalation
950 mg/m³
Effects: Local

DNEL - General population - Human via the environment - Long term - Dermal
206 mg/kg
Effects: Systemic

DNEL - General population - Human via the environment - Long term - Inhalation
114 mg/m³
Effects: Systemic

DNEL - General population - Human via the environment - Long term - Oral
87 mg/kg
Effects: Systemic

acetone

DNEL - Workers - Long term - Dermal
186 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Long term - Inhalation
1210 mg/m³
Effects: Systemic

DNEL - Workers - Short term - Inhalation
2420 mg/m³
Effects: Local

DNEL - General population - Consumers - Long term -

SECTION 8: Exposure controls/personal protection

Dermal
62 mg/kg bw/day
Effects: Systemic

DNEL - General population - Consumers - Long term - Inhalation
200 mg/m³
Effects: Systemic

DNEL - General population - Consumers - Long term - Oral
62 mg/kg bw/day
Effects: Systemic

butan-1-ol

DNEL - Workers - Long term - Inhalation
310 mg/m³
Effects: Local

DNEL - General population - Long term - Oral
1.5625 mg/kg bw/day
Effects: Systemic

DNEL - General population - Long term - Dermal
3.125 mg/kg bw/day
Effects: Systemic

DNEL - General population - Long term - Inhalation
55.537 mg/m³
Effects: Systemic

DNEL - General population - Long term - Inhalation
155 mg/m³
Effects: Local

propan-2-ol

DNEL - Workers - Long term - Dermal
888 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Long term - Inhalation
500 mg/m³
Effects: Systemic

DNEL - General population - Consumers - Long term - Dermal
319 mg/kg bw/day
Effects: Systemic

DNEL - General population - Consumers - Long term - Inhalation
89 mg/m³
Effects: Systemic

DNEL - General population - Consumers - Long term - Oral
26 mg/kg bw/day
Effects: Systemic

xylene

DNEL - Workers - Long term - Dermal
212 mg/m³
Effects: Systemic

DNEL - General population - Long term - Dermal
125 mg/kg

SECTION 8: Exposure controls/personal protection

	Effects: Systemic **DNEL - Workers - Long term - Inhalation** 221 mg/m³ Effects: Systemic **DNEL - Workers - Short term - Inhalation** 289 mg/m³ Effects: Systemic **DNEL - Workers - Short term - Inhalation** 442 mg/m³ Effects: Local **DNEL - General population - Long term - Inhalation** 65.3 mg/m³ Effects: Systemic **DNEL - General population - Short term - Inhalation** 260 mg/m³ Effects: Local **DNEL - General population - Short term - Inhalation** 174 mg/m³ Effects: Systemic **DNEL - General population - Long term - Oral** 1.5 mg/kg Effects: Systemic
ethyl acetate	**DNEL - Workers - Long term - Inhalation** 730 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Dermal** 63 mg/kg Effects: Systemic **DNEL - Workers - Short term - Inhalation** 1468 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Inhalation** 734 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 1468 mg/m³ Effects: Local **DNEL - General population - Consumers - Long term - Inhalation** 367 mg/m³ Effects: Systemic **DNEL - General population - Consumers - Short term - Inhalation** 734 mg/m³ Effects: Systemic **DNEL - General population - Consumers - Long term -**

SECTION 8: Exposure controls/personal protection

Inhalation
367 mg/m³
Effects: Local

DNEL - General population - Consumers - Short term - Inhalation
734 mg/m³
Effects: Local

DNEL - General population - Consumers - Long term - Dermal
37 mg/kg bw/day
Effects: Systemic

DNEL - General population - Consumers - Long term - Oral
4.5 mg/kg bw/day
Effects: Systemic

toluene

DNEL - General population - Human via the environment - Short term - Inhalation
226 mg/m³
Effects: Systemic

DNEL - General population - Human via the environment - Short term - Inhalation
226 mg/m³
Effects: Local

DNEL - General population - Human via the environment - Long term - Dermal
226 mg/m³
Effects: Systemic

DNEL - General population - Human via the environment - Long term - Inhalation
226 mg/kg bw/day
Effects: Systemic

DNEL - General population - Human via the environment - Long term - Inhalation
56.5 mg/m³
Effects: Systemic

DNEL - General population - Human via the environment - Long term - Oral
8.13 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Long term - Inhalation
192 mg/m³
Effects: Systemic

DNEL - Workers - Long term - Inhalation
192 mg/m³
Effects: Local

DNEL - Workers - Short term - Inhalation
384 mg/m³
Effects: Systemic

DNEL - Workers - Short term - Inhalation

SECTION 8: Exposure controls/personal protection

384 mg/m³
Effects: Local

DNEL - Workers - Long term - Dermal
384 mg/kg bw/day
Effects: Systemic

DNEL - General population - Consumers - Long term - Inhalation
56.5 mg/m³
Effects: Local

PNECs

Product/ingredient name	Result
n-butyl acetate	**Fresh water** 0.18 mg/l **Marine water** 0.018 mg/l **Fresh water sediment** 0.981 mg/kg **Marine water sediment** 0.0981 mg/kg **Soil** 0.0903 mg/kg **Sewage Treatment Plant** 35.6 mg/l
ethanol	**Marine water** 0.79 mg/l **Fresh water sediment** 3.6 mg/kg **Marine water sediment** 2.9 mg/kg **Soil** 0.63 mg/kg **Fresh water** 0.96 mg/l **Sewage Treatment Plant** 580 mg/l **Secondary Poisoning** 720 mg/kg
acetone	**Fresh water** 10.6 mg/l **Marine water** 1.06 mg/l **Sewage Treatment Plant** 100 mg/l

SECTION 8: Exposure controls/personal protection

	Fresh water sediment 30.4 mg/kg **Sediment** 3.04 mg/kg **Soil** 29.5 mg/kg
propan-2-ol	**Fresh water** 140.9 mg/l **Marine water** 140.9 mg/l **Sewage Treatment Plant** 2251 mg/l **Sediment** 552 mg/kg dwt **Soil** 28 mg/kg **Secondary Poisoning** 160 mg/kg
ethyl acetate	**Sewage Treatment Plant** 650 mg/l **Fresh water** 0.24 mg/l **Fresh water sediment** 1.15 mg/kg wwt **Soil** 0.148 mg/kg wwt **Marine water** 0.024 mg/l **Marine water sediment** 0.115 mg/kg wwt
toluene	**Fresh water sediment - Assessment Factors** 0.68 mg/l **Marine water sediment - Assessment Factors** 0.68 mg/l **Sewage Treatment Plant - Assessment Factors** 13.61 mg/l **Soil - Assessment Factors** 2.89 mg/kg **Fresh water sediment** 16.39 mg/kg dwt **Marine water sediment** 16.39 mg/kg dwt

SECTION 8: Exposure controls/personal protection

8.2 Exposure controls

Appropriate engineering controls : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

: Users are advised to consider national Occupational Exposure Limits or other equivalent values.

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 : Use safety eyewear designed to protect against splash of liquids.

Skin protection

Hand protection : Wear suitable gloves tested to EN374.

Gloves : Gloves for term exposure/splash protection (less than 10 min):Nitrile>0.12 mm
Gloves for splash protection need to be changed immediately when in contact with chemicals.
Gloves for repeated or prolonged exposure (breakthrough time > 240 min.) When the hazardous ingredients in Section 3 contain any of the following: Aromatic solvents (Xylene, Toluene) or Aliphatic solvents or Mineral Oil use: Polyvinyl alcohol (PVA) gloves 0.2-0.3 mm Otherwise use: Butyl gloves >0.3 mm For long term exposure or spills (breakthrough time >480 min.): Use PE laminated gloves as under gloves
Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing.
The recommendation for the type or types of glove to usewhen handling this product is based on information from the following source: Solvent resin manufacturers and European Solvents Industry Group (ESIG).

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
The breakthrough time must be greater than the end use time of the product.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Always ensure that gloves are free from defects and that they are stored and used correctly.
The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Body protection : Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.

SECTION 8: Exposure controls/personal 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. 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 overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

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 : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Recommended: A2P2 (EN14387). Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls : Do not allow to enter drains or watercourses.

Before use of this material please refer to the Exposure Scenario(s) if attached for the specific end use, control measures and additional PPE considerations. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Colourless.

Odour : Solvent.

Odour threshold : Not Available (Not Tested).

pH : Not relevant/applicable due to nature of the product.
insoluble in water.

Melting point/freezing point : Not relevant/applicable due to nature of the product.

Boiling point or initial boiling point and boiling range : 55°C

Flash point : Closed cup: 14°C [Pensky-Martens Closed Cup]

Evaporation rate : 5.6 (butyl acetate = 1)

Flammability : Flammable liquid.

Lower and upper explosion limit : LEL: 1% (Xylene, mixed isomers)
UEL: 19% (Ethanol)

Vapour pressure : 24 kPa (180 mm Hg)

Relative vapour density : 1.5 [Air = 1]

Relative density : 0.92

Solubility :

Media	Result
cold water	Not soluble

Partition coefficient n-octanol/water (log Pow) : Not relevant/applicable due to nature of the product.

Auto-ignition temperature :

SECTION 9: Physical and chemical properties

Ingredient name	°C	°F	Method
N-Butanol	342	647.6	
Isopropyl Alcohol	398	748.4	
Iso-Butanol	400	752	
n-Butyl Acetate	415	779	
Acetone	465	869	

Decomposition temperature : Not relevant/applicable due to nature of the product.

Viscosity : Kinematic (40°C): >20.5 mm^2/s

Explosive properties : Under normal conditions of storage and use, hazardous reactions will not occur.

Oxidising properties : Under normal conditions of storage and use, hazardous reactions will not occur.

Particle characteristics

Median particle size : Not relevant/applicable due to nature of the product.

9.2 Other information

Heat of combustion : 21.61 kJ/g

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : Stable under recommended storage and handling conditions (see Section 7).

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products.

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.
Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.
If splashed in the eyes, the liquid may cause irritation and reversible damage.
Ingestion may cause nausea, diarrhea and vomiting.
This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains formaldehyde. May produce an allergic reaction.

SECTION 11: Toxicological information

Acute toxicity

Product/ingredient name	Result
n-butyl acetate	**Rat - Oral - LD50** 10768 mg/kg Toxic effects: Behavioral - Somnolence (general depressed activity) Lung, Thorax, or Respiration - Other changes Liver - Other changes **Rabbit - Dermal - LD50** >17600 mg/kg
ethanol	**Rat - Oral - LD50** 7 g/kg **Rat - Inhalation - LC50 Vapour** 124700 mg/m³ [4 hours]
acetone	**Rat - Oral - LD50** 5800 mg/kg Toxic effects: Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Tremor
butan-1-ol	**Rat - Oral - LD50** 790 mg/kg Toxic effects: Liver - Fatty liver degeneration Kidney, Ureter, and Bladder - Other changes Blood - Other changes **Rabbit - Dermal - LD50** 3400 mg/kg **Rat - Inhalation - LC50 Vapour** 24000 mg/m³ [4 hours]
Isobutylated Urea-Formaldehyde Polymer	**Rat - Oral - LD50** >5 g/kg Toxic effects: Olfaction - Other changes Behavioral - Somnolence (general depressed activity) Behavioral - Food intake (animal) **Rabbit - Dermal - LD50** >5 g/kg Toxic effects: Skin After systemic exposure - Dermatitis, other
propan-2-ol	**Rabbit - Dermal - LD50** 12800 mg/kg **Rat - Oral - LD50** 5000 mg/kg Toxic effects: Behavioral - General anesthetic
xylene	**Rat - Oral - LD50** 4300 mg/kg Toxic effects: Liver - Other changes Kidney, Ureter, and Bladder - Other changes **Rat - Inhalation - LC50 Gas.** 6700 ppm [4 hours] Toxic effects: Behavioral - Somnolence (general depressed activity)

SECTION 11: Toxicological information

2-methylpropan-1-ol	**Rat - Oral - LD50** 2460 mg/kg **Rabbit - Dermal - LD50** 3400 mg/kg **Rat - Inhalation - LC50 Vapour** 19200 mg/m³ [4 hours]
ethyl acetate	**Rat - Oral - LD50** 5620 mg/kg
toluene	**Rat - Oral - LD50** 636 mg/kg **Rat - Inhalation - LC50 Vapour** 49 g/m³ [4 hours]
formaldehyde	**Rat - Oral - LD50** 100 mg/kg **Rabbit - Dermal - LD50** 270 mg/kg **Rat - Inhalation - LC50 Gas.** 250 ppm [4 hours]

Conclusion/Summary [Product] : Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
P/C LACQUER SATIN	7890.5	32034.5	195119.3	N/A	N/A
n-butyl acetate	10768	N/A	N/A	N/A	N/A
ethanol	7000	N/A	N/A	124.7	N/A
acetone	5800	N/A	N/A	N/A	N/A
butan-1-ol	790	3400	N/A	24	N/A
propan-2-ol	5000	12800	N/A	N/A	N/A
xylene	4300	1100	6700	N/A	N/A
2-methylpropan-1-ol	2460	3400	N/A	N/A	N/A
ethyl acetate	5620	N/A	N/A	N/A	N/A
toluene	N/A	N/A	N/A	49	N/A
formaldehyde	500	N/A	100	N/A	N/A

Skin corrosion/irritation

Product/ingredient name	Result
n-butyl acetate	**Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg
ethanol	**Rabbit - Skin - Mild irritant** Amount/concentration applied: 400 mg **Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg

SECTION 11: Toxicological information

acetone	**Rabbit - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg **Rabbit - Skin - Mild irritant** Amount/concentration applied: 395 mg
butan-1-ol	**Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg
propan-2-ol	**Rabbit - Skin - Mild irritant** Amount/concentration applied: 500 mg
xylene	**Rat - Skin - Mild irritant** Duration of treatment/exposure: 8 hours Amount/concentration applied: 60 uL **Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg **Rabbit - Skin - Moderate irritant** Amount/concentration applied: 100 %
toluene	**Pig - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 250 uL **Rabbit - Skin - Mild irritant** Amount/concentration applied: 435 mg **Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg **Rabbit - Skin - Moderate irritant** Amount/concentration applied: 500 mg
formaldehyde	**Human - Skin - Mild irritant** Duration of treatment/exposure: 72 hours Amount/concentration applied: 150 ug l **Human - Skin - Severe irritant** Amount/concentration applied: 0.01 % **Rabbit - Skin - Mild irritant** Amount/concentration applied: 540 mg **Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 50 mg **Rabbit - Skin - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 2 mg **Rabbit - Skin - Severe irritant** Amount/concentration applied: 0.8 % **Mouse - Skin - Moderate irritant**

SECTION 11: Toxicological information

Amount/concentration applied: 7 %

Rat - Skin - Moderate irritant
Amount/concentration applied: 7 %

Rabbit - Skin - Severe irritant
Duration of treatment/exposure: 72 hours
Amount/concentration applied: 0.8 %

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name	Result
n-butyl acetate	**Rabbit - Eyes - Moderate irritant** Amount/concentration applied: 100 mg
ethanol	**Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg **Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 0.066666667 minutes Amount/concentration applied: 100 mg **Rabbit - Eyes - Moderate irritant** Amount/concentration applied: 100 uL **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 500 mg **Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 1 hours Amount/concentration applied: 50 pph
acetone	**Human - Eyes - Mild irritant** Amount/concentration applied: 186300 ppm **Rabbit - Eyes - Mild irritant** Amount/concentration applied: 10 uL **Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 20 mg
butan-1-ol	**Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 2 mg **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 0.005 Ml **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 1.62 mg
Isobutylated Urea-Formaldehyde Polymer	**Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 100 uL

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propan-2-ol	**Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 100 mg **Rabbit - Eyes - Moderate irritant** Amount/concentration applied: 10 mg **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 100 mg
xylene	**Rabbit - Eyes - Mild irritant** Amount/concentration applied: 87 mg **Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 5 mg
toluene	**Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 0.5 minutes Amount/concentration applied: 100 mg **Rabbit - Eyes - Mild irritant** Amount/concentration applied: 870 ug **Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 2 mg **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 0.1 Ml
formaldehyde	**Human - Eyes - Mild irritant** Duration of treatment/exposure: 6 minutes Amount/concentration applied: 1 ppm **Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 750 ug **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 750 ug **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 37 % **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 10 mg **Mouse - Eyes - Moderate irritant** Amount/concentration applied: 3 %

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

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Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
n-butyl acetate	STOT SE 3, H336 (Narcotic effects)
acetone	STOT SE 3, H336 (Narcotic effects)
butan-1-ol	STOT SE 3, H335 (Respiratory tract irritation) STOT SE 3, H336 (Narcotic effects)
propan-2-ol	STOT SE 3, H336 (Narcotic effects)
xylene	STOT SE 3, H335 (Respiratory tract irritation)
2-methylpropan-1-ol	STOT SE 3, H335 (Respiratory tract irritation) STOT SE 3, H336 (Narcotic effects)
ethyl acetate	STOT SE 3, H336 (Narcotic effects)
toluene	STOT SE 3, H336 (Narcotic effects)

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
xylene	STOT RE 2, H373
toluene	STOT RE 2, H373

Aspiration hazard

Product/ingredient name	Result
xylene	ASPIRATION HAZARD - Category 1
toluene	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure

Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

SECTION 11: Toxicological information

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.
Do not allow to enter drains or watercourses.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]. See Sections 2 and 3 for details.

Product/ingredient name **Result**

SECTION 12: Ecological information

n-butyl acetate

Acute - LC50 - Fresh water
Fish - Fathead minnow - *Pimephales promelas*
Age: 31 to 32 days; Size: 21.6 mm; Weight: 0.175 g
18 mg/l [96 hours]
Effect: Mortality

Acute - LC50 - Marine water
Crustaceans - Brine shrimp - *Artemia salina*
32 mg/l [48 hours]
Effect: Mortality

ethanol

Acute - LC50 - Fresh water
Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss*
42 mg/l [4 days]
Effect: Mortality

Acute - EC50 - Marine water
Algae - Green algae - *Ulva pertusa*
17.921 mg/l [96 hours]
Effect: Reproduction

Chronic - NOEC - Marine water
Algae - Green algae - *Ulva pertusa*
4.995 mg/l [96 hours]
Effect: Reproduction

Chronic - NOEC - Fresh water
Daphnia - Water flea - *Daphnia magna* - Neonate
Age: <24 hours
100 µl/l [21 days]
Effect: Mortality

Chronic - NOEC - Fresh water
Fish - Eastern mosquitofish - *Gambusia holbrooki* - Larvae
Age: 3 days
0.375 µl/l [12 weeks]
Effect: Morphology

Acute - EC50 - Fresh water
Daphnia - Water flea - *Daphnia magna*
2 mg/l [48 hours]
Effect: Intoxication

acetone

Acute - EC50 - Fresh water
Algae - Green algae - *Selenastrum sp.*
7200 mg/l [96 hours]
Effect: Population

Chronic - NOEC - Marine water
Algae - Green algae - *Ulva pertusa*
4.95 mg/l [96 hours]
Effect: Reproduction

Chronic - NOEC - Fresh water
Crustaceans - Daphnia - *Daphniidae*
0.016 ml/l [21 days]
Effect: Population

Chronic - NOEC - Marine water
Fish - Threespine stickleback - *Gasterosteus aculeatus* -

SECTION 12: Ecological information

	Larvae Age: 7 days 5 µg/l [42 days] Effect: Population **Acute - LC50 - Marine water** ISO Crustaceans - Calanoid copepod - *Acartia tonsa* - Copepodid 4.42589 ml/l [48 hours] Effect: Mortality **Acute - LC50 - Fresh water** Fish - Guppy - *Poecilia reticulata* Age: 4 to 12 months; Size: 2 to 10 cm; Weight: 0.5 to 14 g 5600 ppm [96 hours] Effect: Mortality
butan-1-ol	**Acute - LC50 - Fresh water** Fish - Fathead minnow - *Pimephales promelas* Age: 33 days; Size: 20.6 mm; Weight: 0.119 g 1730 mg/l [96 hours] Effect: Mortality **Acute - EC50 - Fresh water** Daphnia - Water flea - *Daphnia magna* Age: 6 to 24 hours 1983 mg/l [48 hours] Effect: Intoxication
propan-2-ol	**Acute - LC50 - Marine water** Crustaceans - Common shrimp, sand shrimp - *Crangon crangon* 1400 mg/l [48 hours] Effect: Mortality **Acute - LC50 - Fresh water** Fish - Harlequinfish, red rasbora - *Rasbora heteromorpha* Size: 1 to 3 cm 4200 mg/l [96 hours] Effect: Mortality
xylene	**Acute - LC50 - Marine water** Crustaceans - Daggerblade grass shrimp - *Palaemon pugio* 8500 µg/l [48 hours] Effect: Mortality **Acute - LC50 - Fresh water** Fish - Fathead minnow - *Pimephales promelas* Age: 31 days; Size: 18.4 mm; Weight: 0.077 g 13.4 mg/l [96 hours] Effect: Mortality
2-methylpropan-1-ol	**Acute - LC50 - Fresh water** Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss* Weight: 1.67 g 1330 mg/l [96 hours] Effect: Mortality **Acute - LC50 - Marine water** Crustaceans - Brine shrimp - *Artemia salina*

SECTION 12: Ecological information

	600 mg/l [48 hours] Effect: Mortality **Chronic - NOEC - Fresh water** Daphnia - Water flea - *Daphnia magna* Age: ≤24 hours 4 mg/l [21 days] Effect: Reproduction
ethyl acetate	**Acute - LC50 - Fresh water** Daphnia - Water flea - *Daphnia cucullata* Age: 11 days 154 mg/l [48 hours] Effect: Mortality **Acute - LC50 - Fresh water** Fish - Indian catfish - *Heteropneustes fossilis* Size: 14.16 cm; Weight: 25.54 g 212.5 mg/l [96 hours] Effect: Mortality **Acute - EC50 - Fresh water** Algae - Green algae - *Selenastrum sp.* 2500 mg/l [96 hours] Effect: Population **Chronic - NOEC - Fresh water** Fish - Fathead minnow - *Pimephales promelas* - Embryo Age: <24 hours 75.6 mg/l [32 days] Effect: Mortality **Chronic - NOEC - Fresh water** Daphnia - Water flea - *Daphnia magna* Age: ≤24 hours 2.4 mg/l [21 days] Effect: Mortality
toluene	**Acute - LC50 - Fresh water** Fish - Coho salmon,silver salmon - *Oncorhynchus kisutch* - Fry Weight: 1 g 5500 µg/l [96 hours] Effect: Mortality **Acute - EC50 - Fresh water** Daphnia - Water flea - *Daphnia magna* - Juvenile (Fledgling, Hatchling, Weanling) 6000 µg/l [48 hours] Effect: Intoxication **Chronic - NOEC - Fresh water** Daphnia - Water flea - *Daphnia magna* Age: ≤24 hours 1 mg/l [21 days] Effect: Mortality **Acute - EC50 - Fresh water** Algae - Green algae - *Raphidocelis subcapitata* 12.5 mg/l [72 hours] Effect: Growth

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formaldehyde

Chronic - NOEC - Marine water
Algae - Brown algae - *Phyllospora comosa* - Embryo
Age: 7 days
1 mg/l [96 hours]
Effect: Mortality

Acute - LC50 - Fresh water
US EPA
Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss*
1.41 ppm [96 hours]
Effect: Mortality

Acute - EC50 - Fresh water
Daphnia - Water flea - *Daphnia magna* - Embryo
Age: 8 hours
3.26 mg/l [48 hours]
Effect: Development

Chronic - NOEC - Fresh water
Crustaceans - European crayfish - *Astacus astacus* - Egg
3000 ppm [21 days]
Effect: Mortality

Acute - EC50 - Marine water
Algae - Green algae - *Ulva pertusa*
Size: 9.4 mm
0.442 mg/l [96 hours]
Effect: Reproduction

Chronic - NOEC - Fresh water
Fish - Nile tilapia - *Oreochromis niloticus* - Fingerling
Weight: 1.8 g
1.56 mg/l [12 weeks]
Effect: Cells

Conclusion/Summary [Product] : Not available.

12.2 Persistence and degradability

Product/ingredient name	Result
Isobutylated Urea-Formaldehyde Polymer	OECD 7% [28 days]

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
n-butyl acetate	-	-	Readily
ethanol	-	-	Readily
acetone	-	-	Readily
butan-1-ol	-	-	Readily
Isobutylated Urea-Formaldehyde Polymer	-	-	Not readily
propan-2-ol	-	-	Readily

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xylene	-	-	Readily
2-methylpropan-1-ol	-	-	Readily
ethyl acetate	-	-	Readily
toluene	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene, mixed isomers	-	8.1 to 25.9	Low
Ethyl Acetate	-	30	Low
Toluene	-	90	Low

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name	Value
n-butyl acetate	logKoc: 1.5 Koc: 33.2139
ethanol	logKoc: 0.2 Koc: 1.59008
acetone	logKoc: 0.56 Koc: 3.6548
butan-1-ol	logKoc: 0.51 Koc: 3.22078
propan-2-ol	logKoc: 0.54 Koc: 3.4364
2-methylpropan-1-ol	logKoc: 1.1 Koc: 12.0246
ethyl acetate	logKoc: 1.3 Koc: 18.1744
toluene	logKoc: 2.1 Koc: 117.115
formaldehyde	logKoc: 0.44 Koc: 2.72646

Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
n-butyl acetate	No	No	No	No	No	No	No
ethanol	No	No	No	No	No	No	No
acetone	No	No	No	No	No	No	No
butan-1-ol	No	No	No	No	No	No	No
Isobutylated Urea-Formaldehyde Polymer	No	No	No	No	No	No	No
propan-2-ol	No	No	No	No	No	No	No
Reaction mass of Diethylene glycol dibenzoate, Dipropylene glycol dibenzoate and Triethylene glycol dibenzoate	No	No	No	No	No	No	No
xylene	No	No	No	No	No	No	No
2-methylpropan-1-ol	No	No	No	No	No	No	No
ethyl acetate	No	No	No	No	No	No	No
toluene	No	No	No	No	No	No	No
formaldehyde	No	No	No	No	No	No	No

Mobility : Not available.

Conclusion/Summary : The product does not meet the criteria to be considered as a PMT or vPvM.

SECTION 12: Ecological information

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
n-butyl acetate	No	N/A	N/A	No	N/A	N/A	N/A
ethanol	No	N/A	N/A	No	N/A	N/A	N/A
acetone	N/A	N/A	N/A	Yes	N/A	N/A	N/A
butan-1-ol	No	N/A	N/A	No	N/A	N/A	N/A
Isobutylated Urea-Formaldehyde Polymer	No	N/A	N/A	No	N/A	N/A	N/A
propan-2-ol	No	N/A	N/A	No	N/A	N/A	N/A
Reaction mass of Diethylene glycol dibenzoate, Dipropylene glycol dibenzoate and Triethylene glycol dibenzoate	No	N/A	N/A	No	N/A	N/A	N/A
xylene	No	N/A	No	Yes	No	N/A	No
2-methylpropan-1-ol	No	N/A	N/A	No	N/A	N/A	N/A
ethyl acetate	No	N/A	No	No	No	N/A	No
toluene	No	N/A	No	Yes	No	N/A	No
formaldehyde	N/A	N/A	N/A	Yes	N/A	N/A	N/A

Regulation (EC) No. 1272/2008 [CLP]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
n-butyl acetate	No	No	No	No	No	No	No
ethanol	No	No	No	No	No	No	No
acetone	No	No	No	No	No	No	No
butan-1-ol	No	No	No	No	No	No	No
Isobutylated Urea-Formaldehyde Polymer	No	No	No	No	No	No	No
propan-2-ol	No	No	No	No	No	No	No
Reaction mass of Diethylene glycol dibenzoate, Dipropylene glycol dibenzoate and Triethylene glycol dibenzoate	No	No	No	No	No	No	No
xylene	No	No	No	No	No	No	No
2-methylpropan-1-ol	No	No	No	No	No	No	No
ethyl acetate	No	No	No	No	No	No	No
toluene	No	No	No	No	No	No	No
formaldehyde	No	No	No	No	No	No	No

Conclusion/Summary Regulation (EC) No. 1272/2008 [CLP] : The product does not meet the criteria to be considered as a PBT or vPvB.

12.6 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

European waste catalogue (EWC) : waste paint and varnish containing organic solvents or other hazardous substances 08 01 11*

Disposal considerations : Do not allow to enter drains or watercourses.
Dispose of according to all federal, state and local applicable regulations.
If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.
For further information, contact your local waste authority.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Disposal considerations : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

European waste catalogue (EWC) : packaging containing residues of or contaminated by hazardous substances 15 01 10*

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT
14.3 Transport Hazard Class(es)/ Label(s)	3 	3 	3 
14.4 Packing group	II	II	II
14.5 Environmental hazards	No.	No.	No.

SECTION 14: Transport information

Additional information	**Special provisions** 640 (C) **Tunnel code** D/E	**Emergency schedules** F-E, S-E	-

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not applicable.

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
P/C LACQUER SATIN	≥90	3
toluene	≤0.3	48

Labelling : Not applicable.

Synthetic polymer microparticles - Designation 78

Generic identity of polymer(s) : Cellulose and its chemical derivatives, Polymers of ethylene

Total percentage of synthetic polymer microparticles : 1 to 10%

The synthetic polymer microparticles supplied is subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

Other EU regulations

VOC content (2010/75/EU) : 71.7 **w/w**
661 **g/l**

Industrial emissions (integrated pollution prevention and control) - Air : Listed

Explosive precursors : This product is regulated by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

(EC) No 273/2004 on drug precursors

Not listed.

(EC) No 111/2005 Trade between the Union and third countries in drug precursors

SECTION 15: Regulatory information

Ingredient name	%	Status
Acetone	≥10 - ≤25	Category 3
Toluene	≤0.3	Category 3

Seveso Directive

This product may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

National regulations

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms :
ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative
N/A = Not available

Key literature references and sources for data :
Regulation (EC) No. 1272/2008 [CLP]
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878
Directive 2012/18/EU, and relative amendments & additions
Directive 2008/98/EC, and relative amendments & additions
Directive 2009/161/EU, and relative amendments & additions
CEPE Guidelines

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 2, H225	On basis of test data
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
STOT SE 3, H336	Calculation method

Full text of abbreviated H statements :

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

SECTION 16: Other information

H341	Suspected of causing genetic defects.
H350	May cause cancer.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH071	Corrosive to the respiratory tract.

Full text of classifications [CLP/GHS] :

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Aquatic Chronic 4	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Carc. 1B	CARCINOGENICITY - Category 1B
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Muta. 2	GERM CELL MUTAGENICITY - Category 2
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Date of printing : 27, Oct, 2026.

Date of issue/ Date of revision : 27, Oct, 2026

Date of previous issue : 15, Aug, 2026

: If there is no previous validation date please contact your supplier for more information.

Version : 26

Notice to reader

In accordance with Regulation (EC) 1907/2006, REACH Regulation, Articles 31, 37, any required hazard-related information on the use of substances received as downstream user will be sent forward. Consequently, the safety data sheets for some products will contain a SUMI - Safe Use of Mixture Information - attached to the safety data sheet.

SUMI(s) will be added to the SDS for products if both the following conditions are met:

• The product is classified as hazardous for health
• The product contains one or more REACH-registered substances for which extended safety data sheets (exposure scenarios) have been provided

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become make themselves aware of and understand the data contained in this SDS and any hazards that may be associated with the product. This information is provided in good faith and believed to be accurate as of the effective date mentioned herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can may change later the composition, hazards and risks of the product. Products shall should not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to, the incorporation of products not specified by the manufacturer, or

SECTION 16: Other information

the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for the use of the product are not under the manufacturer's control of the manufacturer; the customer/buyer/user is responsible to for determine determining the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS, without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be held responsible for SDSs obtained from any other source.

SUMI
Safe Use of Mixtures
Information for end-users

Title : Industrial spray painting, no booth

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.

General description of the process covered

Paint application on industrial line with no enclosure (only local exhaust ventilation)

Operational conditions

Place of use : Indoor use

Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Industrial application of coatings and inks by spraying	PROC07	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Cleaning	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Industrial application of coatings and inks by spraying	PROC07	Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Waste management	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.

See section 8 of this Safety Data Sheet for specifications.

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No liability is accepted for any damage, no matter of what kind, which is direct or indirect consequence of acts and/or decisions (partly) based on the contents of this document.

SUMI
Safe Use of Mixtures
Information for end-users

Title : Industrial application of coatings and inks by other than spraying-Enclosed

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.

General description of the process covered

Paint application on industrial line by brush, roller, dipping, spreading, coil, fluidised bed or curtain coating (enclosed application)

Operational conditions

Place of use : Indoor use

Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Industrial application of coatings and inks by other than spraying	PROC10, PROC13	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Film formation - force drying, stoving and other technologies	PROC02	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Cleaning	PROC05	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Application equipment cleaning outside booth	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Industrial application of coatings and inks by other than spraying	PROC10, PROC13	None	None	None
Film formation - force drying, stoving and other technologies	PROC02	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.

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Application equipment cleaning outside booth	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Waste management	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.

See section 8 of this Safety Data Sheet for specifications.





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SUMI
Safe Use of Mixtures
Information for end-users

Title : Industrial spray painting, walk-in booth

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.

General description of the process covered

Paint application on industrial line with walk-in spray booth

Operational conditions

Place of use : Indoor use

Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Industrial application of coatings and inks by spraying	PROC07	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Cleaning	PROC05	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Application equipment cleaning outside booth	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Industrial application of coatings and inks by spraying	PROC07	Compressed-air breathing apparatus to EN 14594 with an assigned protection factor of at least 20.	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Application equipment	PROC05	None	Use eye protection	Wear suitable gloves

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cleaning outside booth			according to EN 16321.	tested to EN374.
Waste management	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.

See section 8 of this Safety Data Sheet for specifications.



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SUMI
Safe Use of Mixtures
Information for end-users

Title : Industrial application of coatings and inks by other than spraying-Local exhaust ventilation

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.

General description of the process covered

Paint application on industrial line by brush, roller, dipping, spreading, coil, fluidised bed or curtain coating (local exhaust ventilation only)

Operational conditions

Place of use : Indoor use

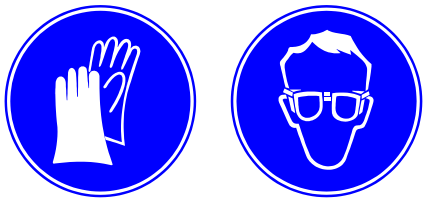
Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Industrial application of coatings and inks by other than spraying	PROC10, PROC13	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Film formation - force drying, stoving and other technologies	PROC04	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Cleaning	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Industrial application of coatings and inks by other than spraying	PROC10, PROC13	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Waste management	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.

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See section 8 of this Safety Data Sheet for specifications.



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SUMI
Safe Use of Mixtures
Information for end-users

Title : Industrial spray painting, enclosed

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet, Technical Data sheet and labels.

General description of the process covered

Paint application on industrial line with fully-enclosed spraying

Operational conditions

Place of use : Indoor use

Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Industrial application of coatings and inks by spraying	PROC07	More than 4 hours	Full containment/extraction	100 or equivalent
Film formation - force drying, stoving and other technologies	PROC02	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Cleaning	PROC05	More than 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Application equipment cleaning outside booth	PROC05	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08b	More than 4 hours	Enhanced (mechanical) room ventilation	5 - 10

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Industrial application of coatings and inks by spraying	PROC07	None	None	None
Film formation - force drying, stoving and other technologies	PROC02	None	None	None
Cleaning	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.
Application equipment cleaning outside booth	PROC05	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.

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Waste management	PROC08b	None	Use eye protection according to EN 16321.	Wear suitable gloves tested to EN374.

See section 8 of this Safety Data Sheet for specifications.





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