SAFETY DATA SHEET

B77 Octobase System Metallic Bright Orange

OCTORAL

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

1.1 Product identifier

Product name : B77 Octobase System Metallic Bright Orange

Product code : 510077

Product description : Not available.

Product type : Liquid.

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

Identified uses
Professional spray painting, near-industrial setting Use in coatings - Basecoat

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

Valspar b.v.
Zuiveringweg 89
8243 PE Lelystad
The Netherlands
tel: +31 (0)320 292200

e-mail address of person responsible for this SDS : msds@valspar.com

National contact

Sherwin-Williams UK Limited
Avenue One Station Lane, Witney, United Kingdom
Oxfordshire OX28 4XR

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : UK: 0-800-014-8126
CALL: +(44)-870-8200418 (Hours of operation - 24 hours)

Supplier

Telephone number : Call: +31 (0)320 292200 (8:30AM - 5PM)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Flam. Liq. 3, H226
Skin Irrit. 2, H315
Eye Dam. 1, H318
STOT SE 3, H336

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 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 : 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 or spray. Wash thoroughly after handling.

Response : IF INHALED: Call a POISON CENTER or doctor if you feel unwell. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. 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 : Store in a well-ventilated place. Keep container tightly closed.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Contains methyl methacrylate, n-butyl methacrylate, formaldehyde and maleic anhydride. May produce an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : 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.

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
n-butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≥25 - ≤50	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	[1] [2]
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≥10 - ≤25	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315	[1] [2]

SECTION 3: Composition/information on ingredients

ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≤5	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304	[1] [2]
butan-1-ol	REACH #: 01-2119484630-38 EC: 200-751-6 CAS: 71-36-3 Index: 603-004-00-6	≤3	Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	[1] [2]
Naphtha (petroleum), hydrotreated heavy	REACH #: 01-2119457273-39 EC: 265-150-3 CAS: 64742-48-9 Index: 649-327-00-6	≤3	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 EUH066	[1]
2-methylpropan-1-ol	REACH #: 01-2119484609-23 EC: 201-148-0 CAS: 78-83-1 Index: 603-108-00-1	≤3	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	[1] [2]
methyl methacrylate	REACH #: 01-2119452498-28 EC: 201-297-1 CAS: 80-62-6 Index: 607-035-00-6	≤0.3	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335	[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	[1] [2]
n-butyl methacrylate	REACH #: 01-2119486394-28 EC: 202-615-1 CAS: 97-88-1 Index: 607-033-00-5	≤0.3	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335	[1]
formaldehyde	REACH #: 01-2119488953-20 EC: 200-001-8 CAS: 50-00-0 Index: 605-001-00-5	<0.1	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335	[1] [2]
cumene	EC: 202-704-5 CAS: 98-82-8 Index: 601-024-00-X	<0.1	Flam. Liq. 3, H226 Carc. 1B, H350 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	[1] [2]
maleic anhydride	REACH #: 01-2119472428-31 EC: 203-571-6 CAS: 108-31-6 Index: 607-096-00-9	<0.001	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1A, H317 STOT RE 1, H372 (respiratory system) (inhalation) EUH071	[1] [2]
benzene	REACH #: 01-2119447106-44 EC: 200-753-7	<0.1	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1] [2]

SECTION 3: Composition/information on ingredients

	CAS: 71-43-2 Index: 601-020-00-8		Muta. 1B, H340 Carc. 1A, H350 STOT RE 1, H372 Asp. Tox. 1, H304	
propylene oxide	EC: 200-879-2 CAS: 75-56-9 Index: 603-055-00-4	<0.1	Flam. Liq. 1, H224 Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 3, H331 Eye Irrit. 2, H319 Muta. 1B, H340 Carc. 1B, H350 STOT SE 3, H335	[1] [2]
ethylene oxide	EC: 200-849-9 CAS: 75-21-8 Index: 603-023-00-X	<0.1	Flam. Gas 1A, H220 Press. Gas (Comp.), H280 Acute Tox. 3, H301 Acute Tox. 3, H331 Skin Corr. 1, H314 Eye Dam. 1, H318 Muta. 1B, H340 Carc. 1B, H350 Repr. 1B, H360Fd STOT SE 3, H335 STOT SE 3, H336 STOT RE 1, H372 (nervous system)	[1] [2]
1,4-dioxane	EC: 204-661-8 CAS: 123-91-1 Index: 603-024-00-5	≤0.1	Flam. Liq. 2, H225 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335 EUH019 EUH066	[1] [2]
methanol	EC: 200-659-6 CAS: 67-56-1 Index: 603-001-00-X	<0.1	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370 **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

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

SECTION 4: First aid measures

Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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

Over-exposure signs/symptoms

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

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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 : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION 6: Accidental release measures

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

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. 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

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonne	50000 tonne

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
n-butyl acetate	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** STEL: 966 mg/m³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 724 mg/m³ 8 hours. TWA: 150 ppm 8 hours.
xylene	**EH40/2005 WELs (United Kingdom (UK), 1/2020). [xylene, o-,m-, p- or mixed isomers] Absorbed through skin.** STEL: 441 mg/m³, 0 times per shift, 15 minutes. STEL: 100 ppm, 0 times per shift, 15 minutes.

SECTION 8: Exposure controls/personal protection

	TWA: 220 mg/m³, 0 times per shift, 8 hours. TWA: 50 ppm, 0 times per shift, 8 hours.
ethylbenzene	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** STEL: 552 mg/m³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 441 mg/m³ 8 hours. TWA: 100 ppm 8 hours.
butan-1-ol	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** STEL: 154 mg/m³ 15 minutes. STEL: 50 ppm 15 minutes.
2-methylpropan-1-ol	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** STEL: 231 mg/m³ 15 minutes. STEL: 75 ppm 15 minutes. TWA: 154 mg/m³ 8 hours. TWA: 50 ppm 8 hours.
methyl methacrylate	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** STEL: 416 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 208 mg/m³ 8 hours. TWA: 50 ppm 8 hours.
toluene	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** STEL: 384 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 191 mg/m³ 8 hours. TWA: 50 ppm 8 hours.
formaldehyde	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** STEL: 2.5 mg/m³ 15 minutes. STEL: 2 ppm 15 minutes. TWA: 2.5 mg/m³ 8 hours. TWA: 2 ppm 8 hours.
cumene	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** STEL: 250 mg/m³ 15 minutes. STEL: 50 ppm 15 minutes. TWA: 125 mg/m³ 8 hours. TWA: 25 ppm 8 hours.
maleic anhydride	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Inhalation sensitiser.** STEL: 3 mg/m³ 15 minutes. TWA: 1 mg/m³ 8 hours.
benzene	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** TWA: 1 ppm 8 hours. TWA: 3.25 mg/m³ 8 hours.
propylene oxide	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** TWA: 1 ppm 8 hours. TWA: 2.4 mg/m³ 8 hours.
ethylene oxide	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** TWA: 1 ppm 8 hours. TWA: 1.8 mg/m³ 8 hours.
1,4-dioxane	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** TWA: 20 ppm 8 hours. TWA: 73 mg/m³ 8 hours.
methanol	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin.** STEL: 333 mg/m³ 15 minutes.

SECTION 8: Exposure controls/personal protection

	STEL: 250 ppm 15 minutes. TWA: 266 mg/m³ 8 hours. TWA: 200 ppm 8 hours.

Recommended monitoring procedures : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
n-butyl acetate	DNEL	Long term Inhalation	35.7 mg/m³	General population [Consumers]	Local
	DNEL	Short term Inhalation	300 mg/m³	General population [Consumers]	Local
	DNEL	Short term Dermal	6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	2 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Oral	2 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	300 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	600 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	300 mg/m³	Workers	Local
	DNEL	Short term Inhalation	600 mg/m³	Workers	Local
	DNEL	Long term Dermal	11 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	11 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	2 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	3.4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	7 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	11 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	12 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	35.7 mg/m³	General population	Local
	DNEL	Long term Inhalation	48 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	300 mg/m³	General population	Local
	DNEL	Short term Inhalation	300 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	300 mg/m³	Workers	Local
	DNEL	Short term Inhalation	600 mg/m³	Workers	Local
	DNEL	Short term Inhalation	600 mg/m³	Workers	Systemic

SECTION 8: Exposure controls/personal protection

xylene	DNEL	Short term Inhalation	174 mg/m³	General population [Consumers]	Local
	DNEL	Short term Inhalation	174 mg/m³	General population [Consumers]	Systemic
	DNEL	Long term Oral	12.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	65.3 mg/m³	General population	Local
	DNEL	Long term Inhalation	65.3 mg/m³	General population	Systemic
	DNEL	Long term Dermal	125 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	212 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	221 mg/m³	Workers	Local
	DNEL	Long term Inhalation	221 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	260 mg/m³	General population	Local
	DNEL	Short term Inhalation	260 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	442 mg/m³	Workers	Local
	DNEL	Short term Inhalation	442 mg/m³	Workers	Systemic
ethylbenzene	DMEL	Long term Inhalation	442 mg/m³	Workers	Local
	DMEL	Short term Inhalation	884 mg/m³	Workers	Systemic
	DNEL	Long term Oral	1.6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	15 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	77 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	293 mg/m³	Workers	Local
butan-1-ol	DNEL	Long term Dermal	3.125 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	1.5625 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	3.125 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	55.357 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	155 mg/m³	General population	Local
	DNEL	Long term Inhalation	310 mg/m³	Workers	Local
Naphtha (petroleum), hydrotreated heavy	DNEL	Long term Dermal	125 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	185 mg/m³	Workers	Systemic
	DNEL	Long term Oral	125 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	208 mg/kg bw/day	Workers	Systemic
	DNEL	Long term	871 mg/m³	Workers	Systemic

SECTION 8: Exposure controls/personal protection

		Inhalation			
2-methylpropan-1-ol	DNEL	Long term Oral	25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	310 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	55 mg/m³	General population	Local
	DNEL	Long term Inhalation	310 mg/m³	Workers	Local
methyl methacrylate	DNEL	Long term Dermal	1.5 mg/cm²	Workers	Local
	DNEL	Short term Dermal	1.5 mg/cm²	Workers	Local
	DNEL	Long term Dermal	1.5 mg/cm²	General population [Consumers]	Local
	DNEL	Short term Dermal	1.5 mg/cm²	General population [Consumers]	Local
	DNEL	Short term Dermal	1.5 mg/cm²	General population	Local
	DNEL	Long term Dermal	1.5 mg/cm²	General population	Local
	DNEL	Short term Dermal	1.5 mg/cm²	Workers	Local
	DNEL	Long term Dermal	1.5 mg/cm²	Workers	Local
	DNEL	Long term Oral	8.2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	8.2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	13.67 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	74.3 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	104 mg/m³	General population	Local
	DNEL	Short term Inhalation	208 mg/m³	General population	Local
	DNEL	Long term Inhalation	208 mg/m³	Workers	Local
	DNEL	Long term Inhalation	348.4 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	416 mg/m³	Workers	Local
toluene	DNEL	Long term Oral	8.13 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	56.5 mg/m³	General population	Local
	DNEL	Long term Inhalation	56.5 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	192 mg/m³	Workers	Local
	DNEL	Long term Inhalation	192 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	226 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	226 mg/m³	General population	Local
	DNEL	Short term Inhalation	226 mg/m³	General population	Systemic
	DNEL	Long term Dermal	384 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	384 mg/m³	Workers	Local
	DNEL	Short term Inhalation	384 mg/m³	Workers	Systemic
n-butyl methacrylate	DNEL	Long term Dermal	3 mg/kg	General	Systemic

SECTION 8: Exposure controls/personal protection

			bw/day	population	
	DNEL	Long term Dermal	5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	66.5 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	366.4 mg/m³	General population	Local
	DNEL	Long term Inhalation	409 mg/m³	Workers	Local
	DNEL	Long term Inhalation	415.9 mg/m³	Workers	Systemic
formaldehyde	DNEL	Long term Dermal	0.037 mg/cm²	Workers	Local
	DNEL	Long term Dermal	0.012 mg/cm²	General population [Consumers]	Local
	DNEL	Long term Dermal	12 ng/cm²	General population	Local
	DNEL	Long term Dermal	37 ng/cm²	Workers	Local
	DNEL	Long term Inhalation	0.1 mg/m³	General population	Local
	DNEL	Long term Inhalation	0.375 mg/m³	Workers	Local
	DNEL	Short term Inhalation	0.75 mg/m³	Workers	Local
	DNEL	Long term Inhalation	3.2 mg/m³	General population	Systemic
	DNEL	Long term Oral	4.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	9 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	102 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	240 mg/kg bw/day	Workers	Systemic
cumene	DNEL	Long term Dermal	1.2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	15.4 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	100 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	250 mg/m³	Workers	Local
	DNEL	Long term Oral	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	16.6 mg/m³	General population	Systemic
maleic anhydride	DNEL	Long term Inhalation	0.81 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	0.2 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	0.81 mg/m³	Workers	Local
	DNEL	Short term Inhalation	0.2 mg/m³	Workers	Local
	DNEL	Long term Dermal	0.2 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	0.4 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.05 mg/m³	General population	Systemic
	DNEL	Long term Oral	0.06 mg/kg bw/day	General population	Systemic
	DNEL	Long term	0.08 mg/m³	General	Local

SECTION 8: Exposure controls/personal protection

		Inhalation		population	
	DNEL	Long term Inhalation	0.081 mg/m³	Workers	Local
	DNEL	Long term Inhalation	0.081 mg/m³	Workers	Systemic
	DNEL	Short term Oral	0.1 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	0.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.1 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	0.2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.2 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	0.2 mg/m³	Workers	Local
	DNEL	Short term Inhalation	0.2 mg/m³	Workers	Systemic
benzene	DNEL	Long term Inhalation	1.9 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	0.14 mg/m³	General population	Systemic
propylene oxide	DNEL	Short term Inhalation	170 mg/m³	General population	Local
	DNEL	Long term Inhalation	0.6 mg/m³	General population	Local
	DNEL	Long term Inhalation	2.4 mg/m³	Workers	Local
	DNEL	Short term Inhalation	170 mg/m³	Workers	Local
ethylene oxide	DMEL	Long term Inhalation	1.8 mg/m³	Workers	Local
	DMEL	Long term Inhalation	1.8 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	10 mg/m³	Workers	Systemic
methanol	DNEL	Long term Inhalation	26 mg/m³	General population [Consumers]	Local
	DNEL	Long term Oral	4 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Oral	4 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	26 mg/m³	General population	Local
	DNEL	Long term Inhalation	26 mg/m³	General population	Local
	DNEL	Short term Inhalation	26 mg/m³	General population	Systemic

SECTION 8: Exposure controls/personal protection

	DNEL	Long term Inhalation	26 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	130 mg/m³	Workers	Local
	DNEL	Long term Inhalation	130 mg/m³	Workers	Local
	DNEL	Short term Inhalation	130 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	130 mg/m³	Workers	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
n-butyl acetate	Fresh water	0.18 mg/l	-
	Marine	0.018 mg/l	-
	Sewage Treatment Plant	35.6 mg/l	-
	Fresh water sediment	0.981 mg/kg dwt	-
	Marine water sediment	0.0981 mg/kg dwt	-
	Soil	0.0903 mg/kg dwt	-
xylene	Fresh water	0.327 mg/l	-
	Marine water	0.327 mg/l	-
	Sewage Treatment Plant	6.58 mg/l	-
	Fresh water sediment	12.46 mg/kg dwt	-
	Marine water sediment	12.46 mg/kg dwt	-
	Soil	2.31 mg/kg dwt	-
ethylbenzene	Fresh water	0.1 mg/l	-
	Marine water	0.01 mg/l	-
	Sewage Treatment Plant	9.6 mg/l	-
	Fresh water sediment	13.7 mg/kg dwt	-
	Marine water sediment	1.37 mg/kg dwt	-
	Soil	2.68 mg/kg dwt	-
butan-1-ol	Fresh water	0.082 mg/l	Assessment Factors
	Marine water	0.0082 mg/l	Assessment Factors
	Sewage Treatment Plant	2476 mg/l	Assessment Factors
	Fresh water sediment	0.324 mg/kg dwt	Equilibrium Partitioning
	Marine water sediment	0.0324 mg/kg dwt	Equilibrium Partitioning
	Soil	0.017 mg/kg dwt	Equilibrium Partitioning
2-methylpropan-1-ol	Fresh water	0.4 mg/l	Assessment Factors
	Marine	0.04 mg/l	Assessment Factors
	Sewage Treatment Plant	10 mg/l	Assessment Factors
	Fresh water sediment	1.56 mg/kg dwt	Equilibrium Partitioning
	Marine water sediment	0.156 mg/kg dwt	Equilibrium Partitioning
	Soil	0.076 mg/kg dwt	Equilibrium Partitioning
methyl methacrylate	Fresh water	0.94 mg/l	Assessment Factors
	Marine water	0.94 mg/l	Assessment Factors
	Sewage Treatment Plant	10 mg/l	Assessment Factors
	Fresh water sediment	5.74 mg/kg dwt	Equilibrium Partitioning
	Soil	1.47 mg/kg dwt	Equilibrium Partitioning
toluene	Fresh water	0.68 mg/l	-
	Marine water	0.68 mg/l	-
	Sewage Treatment Plant	13.61 mg/l	-
	Fresh water sediment	16.39 mg/kg dwt	-
	Marine water sediment	16.39 mg/kg dwt	-
	Soil	2.89 mg/kg dwt	-
n-butyl methacrylate	Fresh water	0.017 mg/l	-
	Marine water	0.0017 mg/l	-
	Sewage Treatment	31.7 mg/l	-

SECTION 8: Exposure controls/personal protection

	Plant		
	Fresh water sediment	4.73 mg/kg dwt	-
	Marine water sediment	0.473 mg/kg dwt	-
	Soil	0.935 mg/kg dwt	-
formaldehyde	Fresh water	0.44 mg/l	Sensitivity Distribution
	Marine water	0.44 mg/l	Assessment Factors
	Sewage Treatment Plant	0.19 mg/l	Assessment Factors
	Fresh water sediment	2.3 mg/kg dwt	Equilibrium Partitioning
	Marine water sediment	2.3 mg/kg dwt	Equilibrium Partitioning
	Soil	0.2 mg/kg dwt	Equilibrium Partitioning
cumene	Fresh water	0.035 mg/l	-
	Marine water	0.004 mg/l	-
	Sewage Treatment Plant	200 mg/l	-
	Fresh water sediment	3.22 mg/kg dwt	-
	Marine water sediment	0.322 mg/kg dwt	-
	Soil	0.624 mg/kg dwt	-
maleic anhydride	Fresh water	0.04281 mg/l	-
	Marine water	0.004281 mg/l	-
	Sewage Treatment Plant	44.6 mg/l	-
	Fresh water sediment	0.334 mg/kg dwt	-
	Marine water sediment	0.0334 mg/kg dwt	-
	Soil	0.0415 mg/kg dwt	-
benzene	Fresh water	1.9 mg/l	Sensitivity Distribution
	Marine water	1.9 mg/l	Sensitivity Distribution
	Sewage Treatment Plant	39 mg/l	Sensitivity Distribution
	Fresh water sediment	33 mg/kg dwt	Equilibrium Partitioning
	Marine water sediment	33 mg/kg dwt	Equilibrium Partitioning
	Soil	4.8 mg/kg dwt	Equilibrium Partitioning
methanol	Fresh water	20.8 mg/l	Assessment Factors
	Marine water	2.08 mg/l	Assessment Factors
	Sewage Treatment Plant	100 mg/l	Assessment Factors
	Fresh water sediment	77 mg/kg dwt	Equilibrium Partitioning
	Marine water sediment	7.7 mg/kg dwt	Equilibrium Partitioning
	Soil	100 mg/kg dwt	Assessment Factors

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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 an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: chemical splash goggles and/or face shield.

Skin protection

SECTION 8: Exposure controls/personal protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard 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. > 8 hours (breakthrough time): Recommended EN 374 Viton® polyvinyl alcohol (PVA) >= 0.7 mm
< 1 hour (breakthrough time): Conditionally suitable materials for protective gloves; EN 374: Nitrile rubber - NBR (>= 0.35 mm). Only suitable as splash protection. Only suitable for brief exposure. In the event of contamination, change protective gloves immediately.

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. 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. Recommended: Cotton or cotton/synthetic overalls or coveralls are normally suitable.

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. Recommended: EN 405:2001 + A1:2009 organic vapour (Type A) and particulate filter FFA2P3 R D

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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 : Orange.

Odour : Hydrocarbon.

Odour threshold : Not available.

Melting point/freezing point : Not applicable.

Initial boiling point and boiling range : >100°C (>212°F)

Flammability (solid, gas) : Not available.

Upper/lower flammability or explosive limits : Lower: 0.8%
Upper: 11.2%

Flash point : Closed cup: 24.5°C (76.1°F)

Auto-ignition temperature : 415°C (779°F)

Decomposition temperature : Not applicable.

pH : Not applicable.

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

Solubility(ies) :

SECTION 9: Physical and chemical properties

Media	Result
cold water	Not soluble
hot water	Not soluble

Solubility in water : Not applicable.

Miscible with water : No.

Partition coefficient: n-octanol/water : Not applicable.

Vapour pressure : 1.3 kPa (10 mm Hg)

Evaporation rate : 1 (butyl acetate = 1)

Relative density : 0.974

Density : 0.974 g/cm³

Vapour density : 2.55 [Air = 1]

Explosive properties : Not available.

Oxidising properties : Not available.

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

Heat of combustion : 18.921 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 : The product is stable.

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

10.4 Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.

10.5 Incompatible materials : Reactive or incompatible with the following materials:
oxidising materials

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
n-butyl acetate	LC50 Inhalation Gas.	Rat	390 ppm	4 hours
	LC50 Inhalation Vapour	Rat	>21.1 mg/l	4 hours
	LD50 Dermal	Rabbit	>14112 mg/kg	-
	LD50 Oral	Rat	10760 mg/kg	-
xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LC50 Inhalation Vapour	Rat - Male	29000 mg/l	4 hours
	LD50 Dermal	Rabbit	12126 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
ethylbenzene	LC50 Inhalation Vapour	Rat	6350 ppm	4 hours
	LD50 Dermal	Rabbit	12126 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

SECTION 11: Toxicological information

butan-1-ol	LC50 Inhalation Vapour	Rat	24000 mg/m³	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
Naphtha (petroleum), hydrotreated heavy	LC50 Inhalation Vapour	Rat	5000 mg/m³	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapour	Rat	19200 mg/m³	4 hours
	LD50 Dermal	Rabbit	3392 mg/kg	-
	LD50 Oral	Rat	2460 mg/kg	-
methyl methacrylate	LC50 Inhalation Vapour	Rat - Male, Female	29.8 mg/l	4 hours
	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	7872 mg/kg	-
toluene	LC50 Inhalation Vapour	Rat	28.1 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	636 mg/kg	-
n-butyl methacrylate	LC50 Inhalation Vapour	Rat	4910 ppm	4 hours
	LD50 Oral	Rat	16 g/kg	-
formaldehyde	LC50 Inhalation Gas.	Rat	250 ppm	4 hours
	LD50 Dermal	Rabbit	270 mg/kg	-
	LD50 Oral	Rat	100 mg/kg	-
cumene	LC50 Inhalation Vapour	Rat	39000 mg/m³	4 hours
	LD50 Oral	Rat	1400 mg/kg	-
maleic anhydride	LD50 Dermal	Rabbit	2620 mg/kg	-
	LD50 Oral	Rat	400 mg/kg	-
benzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	930 mg/kg	-
propylene oxide	LC50 Inhalation Gas.	Rat	4000 ppm	4 hours
	LD50 Oral	Rat	380 mg/kg	-
ethylene oxide	LC50 Inhalation Gas.	Rat	800 ppm	4 hours
	LD50 Oral	Rat	72 mg/kg	-
1,4-dioxane	LD50 Oral	Rat	4200 mg/kg	-
methanol	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-

Conclusion/Summary : 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)
B77 Octobase System Metallic Bright Orange	28033.7	5675.1	25796.1	231.6	N/A
n-butyl acetate	10760	N/A	N/A	N/A	N/A
xylene	4300	1100	5000	29000	N/A
ethylbenzene	3500	12126	N/A	11	N/A
butan-1-ol	790	3400	N/A	24	N/A
2-methylpropan-1-ol	2460	3392	N/A	N/A	N/A
methyl methacrylate	7872	N/A	N/A	29.8	N/A
toluene	N/A	N/A	N/A	28.1	N/A
n-butyl methacrylate	16000	N/A	N/A	N/A	N/A
formaldehyde	100	270	250	N/A	N/A
cumene	N/A	N/A	N/A	39	N/A
maleic anhydride	400	2620	N/A	N/A	N/A
propylene oxide	380	300	N/A	3	N/A
ethylene oxide	100	N/A	700	N/A	N/A
1,4-dioxane	4200	N/A	N/A	N/A	N/A
methanol	100	300	64000	3	N/A

Irritation/Corrosion

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
n-butyl acetate	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
xylene	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 uL	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-
butan-1-ol	Eyes - Severe irritant	Rabbit	-	0.005 Ml	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 mg	-
	Eyes - Mild irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Pig	-	24 hours 250 uL	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-
n-butyl methacrylate	Skin - Mild irritant	Rabbit	-	500 uL	-
formaldehyde	Eyes - Mild irritant	Human	-	6 minutes 1 ppm	-
	Eyes - Severe irritant	Rabbit	-	24 hours 750 ug	-
	Eyes - Severe irritant	Rabbit	-	750 ug	-
	Skin - Mild irritant	Human	-	72 hours 150 ug l	-
	Skin - Mild irritant	Rabbit	-	540 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Severe irritant	Human	-	0.01 %	-
	Skin - Severe irritant	Rabbit	-	0.8 %	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-
cumene	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Mild irritant	Rabbit	-	86 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 10 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 mg	-
maleic anhydride	Eyes - Severe irritant	Rabbit	-	1 %	-
benzene	Eyes - Moderate irritant	Rabbit	-	88 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 uL	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
propylene oxide	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-

SECTION 11: Toxicological information

	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Moderate irritant	Rabbit	-	415 mg	-
	Skin - Severe irritant	Rabbit	-	6 minutes 50 mg	-
ethylene oxide	Eyes - Moderate irritant	Rabbit	-	6 hours 18 mg	-
1,4-dioxane	Eyes - Moderate irritant	Guinea pig	-	10 ug	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	515 mg	-
methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	40 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-

Conclusion/Summary : Not available.

Sensitisation

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
n-butyl acetate	Category 3	-	Narcotic effects
butan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Naphtha (petroleum), hydrotreated heavy	Category 3	-	Narcotic effects
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
methyl methacrylate	Category 3	-	Respiratory tract irritation
toluene	Category 3	-	Narcotic effects
n-butyl methacrylate	Category 3	-	Respiratory tract irritation
formaldehyde	Category 3	-	Respiratory tract irritation
cumene	Category 3	-	Respiratory tract irritation
propylene oxide	Category 3	-	Respiratory tract irritation
ethylene oxide	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
1,4-dioxane	Category 3	-	Respiratory tract irritation
methanol	Category 1	-	-

Specific target organ toxicity (repeated exposure)

SECTION 11: Toxicological information

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs
toluene	Category 2	-	-
maleic anhydride	Category 1	inhalation	respiratory system
benzene	Category 1	-	-
ethylene oxide	Category 1	-	nervous system

Aspiration hazard

Product/ingredient name	Result
ethylbenzene	ASPIRATION HAZARD - Category 1
Naphtha (petroleum), hydrotreated heavy	ASPIRATION HAZARD - Category 1
toluene	ASPIRATION HAZARD - Category 1
cumene	ASPIRATION HAZARD - Category 1
benzene	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.

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.

SECTION 11: Toxicological information

Conclusion/Summary : 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.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
n-butyl acetate	Acute EC50 397 mg/l	Algae - *Selenastrum capricornutum*	72 hours
	Acute EC50 44 mg/l	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 32 mg/l Marine water	Crustaceans - Brine shrimp - *Artemia salina*	48 hours
	Acute LC50 18 mg/l	Fish - *Pimephales promelas*	96 hours
	Acute NOEC 200 mg/l	Algae	72 hours
xylene	Acute EC50 1 to 10 mg/l	Algae	72 hours
	Acute EC50 1 to 10 mg/l	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 8500 µg/l Marine water	Crustaceans - Daggerblade grass shrimp - *Palaemonetes pugio*	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Fathead minnow - *Pimephales promelas*	96 hours
ethylbenzene	Acute EC50 4900 µg/l Marine water	Algae - Diatom - *Skeletonema costatum*	72 hours
	Acute EC50 7700 µg/l Marine water	Algae - Diatom - *Skeletonema costatum*	96 hours
	Acute EC50 6.53 mg/l Marine water	Crustaceans - Brine shrimp - *Artemia sp.* - Nauplii	48 hours
	Acute EC50 2.93 mg/l Fresh water	Daphnia - Water flea - *Daphnia magna* - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss*	96 hours
butan-1-ol	Acute EC50 225 mg/l	Algae - *Desmodesmus subspicatus*	96 hours
	Acute EC50 1328 mg/l	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 1376 mg/l	Fish - *Pimephales promelas*	96 hours
	Chronic NOEC 4.1 mg/l	Daphnia - *Daphnia magna*	21 days
2-methylpropan-1-ol	Acute EC50 1799 mg/l	Algae - *Pseudokirchneriella subcapitata*	72 hours
	Acute EC50 1799 mg/l	Aquatic plants - *Scenedesmus subspicatus*	72 hours
	Acute LC50 600 mg/l Marine water	Crustaceans - Brine shrimp - *Artemia salina*	48 hours
	Acute LC50 1030000 µg/l Fresh water	Daphnia - Water flea - *Daphnia magna* - Neonate	48 hours
	Acute LC50 1330000 µg/l Fresh water	Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss*	96 hours
	Chronic NOEC 117 mg/l	Algae - *Pseudokirchneriella subcapitata*	72 hours
	Chronic NOEC 4 mg/l Fresh water	Daphnia - Water flea - *Daphnia magna*	21 days
methyl methacrylate	Acute EC50 >110 mg/l Fresh water	Algae - *Pseudokirchnerella subcapitata*	72 hours
	Acute EC50 69 mg/l Fresh water	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 130 mg/l Fresh water	Fish - *Pimephales promelas*	96 hours
	Acute NOEC 49 mg/l Fresh water	Algae - *Pseudokirchnerella subcapitata*	72 hours

SECTION 12: Ecological information

	Chronic NOEC 37 mg/l Fresh water	Daphnia - *Daphnia magna*	21 days
	Chronic NOEC 9.4 mg/l Fresh water	Fish - *Danio rerio*	35 days
toluene	Acute EC50 12.5 mg/l	Algae	72 hours
	Acute EC50 >433 ppm Marine water	Algae - Diatom - *Skeletonema costatum*	96 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Scud - *Gammarus pseudolimnaeus* - Adult	48 hours
	Acute EC50 3.8 mg/l	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 5.5 mg/l	Fish - *Oncorhynchus kisutch*	96 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Water flea - *Daphnia magna*	21 days
n-butyl methacrylate	Chronic NOEC 2.6 mg/l Fresh water	Daphnia - Water flea - *Daphnia magna* - Neonate	21 days
formaldehyde	Acute EC50 3.48 mg/l Fresh water	Algae - Green algae - *Desmodesmus subspicatus*	72 hours
	Acute EC50 0.442 mg/l Marine water	Algae - Green algae - *Ulva pertusa*	96 hours
	Acute EC50 3.26 mg/l Fresh water	Daphnia - Water flea - *Daphnia magna* - Embryo	48 hours
	Acute LC50 11.41 mg/l Fresh water	Crustaceans - Water flea - *Ceriodaphnia dubia*	48 hours
	Acute LC50 1.41 ppm Fresh water	Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss*	96 hours
	Chronic NOEC 0.005 mg/l Marine water	Algae - Haptophyte - *Isochrysis galbana* - Exponential growth phase	96 hours
	Chronic NOEC 3000 ppm Fresh water	Crustaceans - European crayfish - *Astacus astacus* - Egg	21 days
	Chronic NOEC 0.81 to 1.07 mg/l	Daphnia - Water flea - *Daphnia magna*	21 days
	Chronic NOEC 1.56 mg/l Fresh water	Fish - Nile tilapia - *Oreochromis niloticus* - Fingerling	12 weeks
cumene	Acute EC50 7.4 mg/l Marine water	Crustaceans - Brine shrimp - *Artemia sp.* - Nauplii	48 hours
	Acute EC50 10.6 mg/l Fresh water	Daphnia - Water flea - *Daphnia magna* - Neonate	48 hours
	Acute LC50 2700 µg/l Fresh water	Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss*	96 hours
maleic anhydride	Acute EC50 42.81 mg/l	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 230 ppm Fresh water	Fish - Western mosquitofish - *Gambusia affinis* - Adult	96 hours
benzene	Acute EC50 1600000 µg/l Fresh water	Algae - Green algae - *Selenastrum sp.*	96 hours
	Acute EC50 9.23 mg/l Fresh water	Daphnia - Water flea - *Daphnia magna* - Neonate	48 hours
	Acute LC50 21 mg/l Marine water	Crustaceans - Brine shrimp - *Artemia salina*	48 hours
	Acute LC50 5.28 ul/L Fresh water	Fish - Pink salmon - *Oncorhynchus gorbuscha* - Fry	96 hours
	Chronic EC10 >1360 mg/l Fresh water	Algae - Green algae - *Desmodesmus subspicatus*	96 hours
	Chronic NOEC 98 mg/l Fresh water	Daphnia - Water flea - *Daphnia magna*	21 days
	Chronic NOEC 1.5 to 5.4 ul/L Marine water	Fish - Striped bass - *Morone saxatilis* - Juvenile (Fledgling, Hatchling, Weanling)	4 weeks
propylene oxide	Acute LC50 89 ppm Marine water	Fish - Striped mullet - *Mugil cephalus*	96 hours
ethylene oxide	Acute LC50 490000 µg/l Marine water	Crustaceans - Brine shrimp - *Artemia sp.*	48 hours
	Acute LC50 137000 µg/l Fresh water	Daphnia - Water flea - *Daphnia magna*	48 hours

SECTION 12: Ecological information

	Acute LC50 84000 µg/l Fresh water	Fish - Fathead minnow - *Pimephales promelas*	96 hours
1,4-dioxane	Acute LC50 1.5 mg/l Fresh water	Daphnia - Water flea - *Daphnia magna* - Neonate	48 hours
	Acute LC50 6700 ppm Marine water	Fish - Inland silverside - *Menidia beryllina*	96 hours
	Chronic NOEC 145 mg/l Fresh water	Fish - Fathead minnow - *Pimephales promelas*	32 days
methanol	Acute EC50 16.912 mg/l Marine water	Algae - Green algae - *Ulva pertusa*	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - Common shrimp, sand shrimp - *Crangon crangon* - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - Water flea - *Daphnia magna* - Neonate	48 hours
	Acute LC50 290 mg/l Fresh water	Fish - Zebra danio - *Danio rerio* - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - Green algae - *Ulva pertusa*	96 hours

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
n-butyl acetate	OECD 301D Ready Biodegradability - Closed Bottle Test	>80 % - 5 days	-	-
butan-1-ol	OECD 301E Ready Biodegradability - Modified OECD Screening Test	>70 % - 19 days	-	-
Naphtha (petroleum), hydrotreated heavy	-	80 % - Readily - 28 days	-	-
2-methylpropan-1-ol	-	70 to 80 % - 28 days	-	-

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
n-butyl acetate	-	-	Readily
butan-1-ol	-	-	Readily
Naphtha (petroleum), hydrotreated heavy	-	-	Readily
2-methylpropan-1-ol	-	-	Readily
toluene	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
n-butyl acetate	2.3	-	Low
xylene	3.12	8.1 to 25.9	Low
ethylbenzene	3.6	-	Low
butan-1-ol	1	-	Low
2-methylpropan-1-ol	1	-	Low
methyl methacrylate	1.38	-	Low
toluene	2.73	90	Low
n-butyl methacrylate	2.99	-	Low
cumene	3.55	35.48	Low
maleic anhydride	-2.78	-	Low
benzene	2.13	11	Low

SECTION 12: Ecological information

propylene oxide	<1	-	Low
ethylene oxide	-0.3	-	Low
1,4-dioxane	-0.42	0.3 to 0.7	Low
methanol	-0.77	<10	Low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

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).

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 : The classification of the product may meet the criteria for a hazardous waste.

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.

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	ADN	IMDG	IATA
14.1 UN number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINTPAINT	PAINT	Paint
14.3 Transport hazard class(es)	3 	3 	3 	3 
14.4 Packing group	III	III	III	III

SECTION 14: Transport information

14.5 Environmental hazards	No.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.

Additional information

ADR/RID : **Hazard identification number** 30
Limited quantity 5 L
Special provisions 163, 640E, 650
Tunnel code (D/E)

ADN : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.
Special provisions 163, 640E, 650

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Emergency schedules F-E, _S-E_
Special provisions 163, 223, 955

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.
Quantity limitation Passenger and Cargo Aircraft: 60 L. Packaging instructions: 355. Cargo Aircraft Only: 220 L. Packaging instructions: 366. Limited Quantities - Passenger Aircraft: 10 L. Packaging instructions: Y344.
Special provisions A3, A72

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 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
Carcinogen Mutagen	methyloxirane methyloxirane	Candidate Candidate	- -	12/19/2012 12/19/2012

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

SECTION 15: Regulatory information

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c

National regulations

Product/ingredient name	List name	Name on list	Classification	Notes
formaldehyde	UK Occupational Exposure Limits EH40 - WEL	formaldehyde; methanal	Carc.	-
benzene	UK Occupational Exposure Limits EH40 - WEL	benzene; benzol	Carc.	-
propylene oxide	UK Occupational Exposure Limits EH40 - WEL	propylene oxide; 1,2-epoxypropane	Carc.	-
ethylene oxide	UK Occupational Exposure Limits EH40 - WEL	ethylene oxide; epoxyethane	Carc.	-

EU regulations

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

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

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : All components are listed or exempted.

Canada : Not determined.

China : All components are listed or exempted.

Eurasian Economic Union : **Russian Federation inventory**: Not determined.

SECTION 15: Regulatory information

Japan : **Japan inventory (CSCL)**: All components are listed or exempted.
Japan inventory (ISHL): Not determined.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

Thailand : Not determined.

Turkey : Not determined.

United States : All components are active or exempted.

Viet Nam : Not determined.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

Classification	Justification
Flam. Liq. 3, H226	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

H220	Extremely flammable gas.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
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.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.

SECTION 16: Other information

H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H360Fd	May damage fertility. Suspected of damaging the unborn child.
H361d	Suspected of damaging the unborn child.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
EUH019	May form explosive peroxides.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH071	Corrosive to the respiratory tract.

Full text of classifications

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

Date of printing : 10/26/2023

Date of issue/ Date of revision : 10/18/2023

Date of previous issue : 10/18/2023

Version : 1

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SUMI
Safe Use of Mixtures
Information for end-users

OCTORAL

Title : Professional spray painting, near-industrial setting

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 and labels.

General description of the process covered

Indoor spray painting by professionals with efficient ventilation such as spray booth or 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	1 to 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08a	15 minutes to 1 hour	Enhanced (mechanical) room ventilation	5 - 10
Professional application of coatings and inks by spraying	PROC11	1 to 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Film formation - force drying, stoving and other technologies	PROC04	1 to 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Cleaning	PROC05	1 to 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08a	15 minutes to 1 hour	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 166.	Wear suitable gloves tested to EN374.
Loading of application equipment and handling of coated parts before curing	PROC08a	None	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Professional application of coatings and inks by spraying	PROC11	Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Film formation - force drying, stoving and other technologies	PROC04	Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.	None	None
Cleaning	PROC05	Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.
Waste management	PROC08a	Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.	Use eye protection according to EN 166.	Wear suitable gloves tested to EN374.

See chapter 8 of this Safety Data Sheet for specifications.

Disclaimer

The information in this Safe Use of Mixture Information sheet is based on the data provided by the substance supplier for the substances in the product for which a chemical safety assessment has been carried out at the time of issue. It does not guarantee safe use of the product and does not replace any occupational risk assessment required by legislation. When developing workplace instructions for employees, SUMI sheets should always be considered in combination with the SDS and the label of the product.
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.