

SAFETY DATA SHEET



MM 946 WaterBase 900+ Series Blue Green

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

1.1 Product identifier

Product name : MM 946 WaterBase 900+ Series Blue Green
Product code : 9946
Product description : Not available.
Product type : Liquid.

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

Identified uses

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

Skin Sens. 1, H317

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

Hazard pictograms :



Signal word : Warning

Hazard statements : May cause an allergic skin reaction.

SECTION 2: Hazards identification

Precautionary statements

- Prevention** : Wear protective gloves. Avoid breathing vapour or spray.
- Response** : Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention.
- Storage** : Not applicable.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** : Not applicable.
- 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
2-butoxyethanol	REACH #: 01-2119475108-36 EC: 203-905-0 CAS: 111-76-2 Index: 603-014-00-0	<10	Acute Tox. 4, H302 Acute Tox. 3, H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1] [2]
2,4,7,9-tetramethyldec-5-yne-4,7-diol	REACH #: 01-2119954390-39 EC: 204-809-1 CAS: 126-86-3	≤0.3	Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 3, H412	[1]
(2-methoxymethylethoxy)propanol	REACH #: 01-2119450011-60 EC: 252-104-2 CAS: 34590-94-8	≤0.3	Not classified.	[2]
3(2H)-Isothiazolone, 2-methyl-	REACH #: 01-2120764690-50 EC: 220-239-6 CAS: 2682-20-4	<0.01	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1) EUH071	[1]
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	[1] [2]

SECTION 3: Composition/information on ingredients

4-methylpentan-2-one	REACH #: 01-2119473980-30 EC: 203-550-1 CAS: 108-10-1 Index: 606-004-00-4	≤0.1	Acute Tox. 3, H331 STOT SE 1, H370 Flam. Liq. 2, H225 Acute Tox. 4, H332 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H336 EUH066 See Section 16 for the full text of the H statements declared above.	[1] [2]
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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** : 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. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention if adverse health effects persist or are severe. 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. 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.
- Skin contact** : Wash with plenty of soap and 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. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : 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. Get medical attention if adverse health effects persist or are severe. 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. 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** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness

SECTION 4: First aid measures

Ingestion : No specific data.

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.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products : Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide
 nitrogen oxides
 halogenated compounds
 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.

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. Avoid breathing 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. 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.

SECTION 6: Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. 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 spill product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
- 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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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 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. 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.

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
2-butoxyethanol	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 50 ppm 15 minutes. TWA: 25 ppm 8 hours.
(2-methoxymethylethoxy)propanol	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. TWA: 308 mg/m ³ 8 hours.
methanol	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 333 mg/m ³ 15 minutes.

SECTION 8: Exposure controls/personal protection

4-methylpentan-2-one	STEL: 250 ppm 15 minutes. TWA: 266 mg/m ³ 8 hours. TWA: 200 ppm 8 hours. EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed through skin. STEL: 416 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 208 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
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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
2-butoxyethanol	DNEL	Long term Oral	6.3 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	26.7 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	59 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	98 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	147 mg/m ³	General population	Local
	DNEL	Short term Inhalation	246 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	426 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	1091 mg/m ³	Workers	Systemic
2,4,7,9-tetramethyldec-5-yne-4,7-diol	DNEL	Long term Oral	0.25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.43 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0.5 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Oral	0.75 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	0.75 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	1.29 mg/m ³	General population	Systemic
	DNEL	Short term Dermal	1.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.76 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	5.28 mg/m ³	Workers	Systemic
(2-methoxymethylethoxy)propanol	DNEL	Long term Oral	36 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	36 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	37.2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	121 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	283 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	308 mg/m ³	Workers	Systemic

SECTION 8: Exposure controls/personal protection

	DNEL	Inhalation Short term	155.2 mg/ m ³	General population	Local
	DNEL	Inhalation Short term	155.2 mg/ m ³	General population	Systemic
	DNEL	Inhalation Short term	208 mg/m ³	Workers	Local
	DNEL	Inhalation Short term	208 mg/m ³	Workers	Systemic
	DNEL	Inhalation Long term Oral	4.2 mg/kg bw/day	General population	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
2-butoxyethanol	Fresh water	8.8 mg/l	-
	Marine water	0.88 mg/l	-
	Sewage Treatment Plant	463 mg/l	-
	Fresh water sediment	34.6 mg/kg dwt	-
	Marine water sediment	3.46 mg/kg dwt	-
	Soil	2.33 mg/kg dwt	-
	2,4,7,9-tetramethyldec-5-yne-4,7-diol	Secondary Poisoning	20 mg/kg
Fresh water		0.04 mg/l	-
Marine water		0.004 mg/l	-
Sewage Treatment Plant		7 mg/l	-
Fresh water sediment		0.32 mg/kg dwt	-
Marine water sediment		0.032 mg/kg dwt	-
Soil		0.028 mg/kg dwt	-
(2-methoxymethylethoxy)propanol	Fresh water	19 mg/l	Assessment Factors
	Marine water	1.9 mg/l	Assessment Factors
	Sewage Treatment Plant	4168 mg/l	Assessment Factors
	Fresh water sediment	70.2 mg/kg dwt	Equilibrium Partitioning
	Marine water sediment	7.02 mg/kg dwt	Equilibrium Partitioning
	Soil	2.74 mg/kg dwt	Equilibrium Partitioning
	3(2H)-Isothiazolone, 2-methyl-	Fresh water	3.39 µg/l
Marine water		3.39 µg/l	Assessment Factors
Sewage Treatment Plant		0.23 mg/l	Assessment Factors
Soil		0.047 mg/kg dwt	Assessment Factors
Fresh water		20.8 mg/l	Assessment Factors
Marine water		2.08 mg/l	Assessment Factors
Sewage Treatment Plant		100 mg/l	Assessment Factors
methanol	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
	Fresh water	0.6 mg/l	-
	Marine	0.06 mg/l	-
	Sewage Treatment Plant	27.5 mg/l	-
	Fresh water sediment	8.27 mg/kg dwt	-
4-methylpentan-2-one	Marine water sediment	0.83 mg/kg dwt	-
	Soil	1.3 mg/kg dwt	-

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

SECTION 8: Exposure controls/personal protection

- 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. Contaminated work clothing should not be allowed out of the workplace. 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: safety glasses with side-shields. Recommended: chemical splash goggles and/or face shield.
- Skin 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 foil butyl rubber fluor rubber
 >= 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. 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** : Green. Blue.
- Odour** : Not available.
- Odour threshold** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : 100°C (212°F)
- Flammability (solid, gas)** : Not available.
- Upper/lower flammability or explosive limits** : Not available.
- Flash point** : Closed cup: >93.3°C (>199.9°F)
- Auto-ignition temperature** :

SECTION 9: Physical and chemical properties

Ingredient name	°C	°F	Method
(2-methoxymethylethoxy)propanol	207	404.6	EU A.15
2-butoxyethanol	230	446	DIN 51794
2-dimethylaminoethanol	230	446	DIN 51794
2,4,7,9-Tetramethyldec-5-yne-4,7-diol, ethoxylated	335 to 338	635 to 640.4	
oleic acid	363	685.4	
dodecamethylcyclohexasiloxane	368 to 371	694.4 to 699.8	
propane-1,2-diol	371	699.8	
decamethylcyclopentasiloxane	372	701.6	ASTM E 659-78
Copper, [29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]-, brominated chlorinated	376	708.8	EU A.16
polychloro copper phthalocyanine	378	712.4	EU A.16
2,4,7,9-tetramethyldec-5-yne-4,7-diol	380	716	
octamethylcyclotetrasiloxane	384 to 387	723.2 to 728.6	ASTM E 659
2-amino-2-methylpropanol	438	820.4	ASTM D 2161
4-methylpentan-2-one	448	838.4	
methanol	455	851	DIN 51794
propan-2-ol	456	852.8	
styrene	490	914	

Decomposition temperature : Not available.

pH : 7.9 to 8.1 [Conc. (% w/w): 100%]

Viscosity : Not available.

Solubility(ies) :

Media	Result
cold water	Easily soluble
hot water	Easily soluble

Solubility in water : Not available.

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

Vapour pressure :

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
methanol	126.96329	16.9				
propan-2-ol	33	4.4				
water	17.5	2.3				
4-methylpentan-2-one	15.75128	2.1				
styrene	6.4	0.85				
2-dimethylaminoethanol	4.59	0.61				
octamethylcyclotetrasiloxane	0.99008	0.13				
2-butoxyethanol	0.75006	0.1				
2-amino-2-methylpropanol	0.33753	0.045	ASTM E 1194			
(2-methoxymethylethoxy)propanol	0.2812	0.037				
decamethylcyclopentasiloxane	0.25	0.033				
propane-1,2-diol	0.15	0.02	EU A.4			
2,4,7,9-tetramethyldec-5-yne-4,7-diol	0.00465	0.00062				

SECTION 9: Physical and chemical properties

2,4,7,9-Tetramethyldec-5-yne-4,7-diol, ethoxylated	0.00465	0.00062			
bronopol (INN)	0.00004	0.0000053		0.00165	0.00022
polychloro copper phthalocyanine	<0.00001	<0.0000013			
maleic acid	0	0	OECD 104		

Relative density	: 1.012
Density	: 1.012 g/cm ³
Vapour density	: Not available.
Explosive properties	: Not available.
Oxidising properties	: Not available.
Particle characteristics	
Median particle size	: Not applicable.

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	: No specific data.
10.5 Incompatible materials	: No specific data.
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
2-butoxyethanol	LC50 Inhalation Gas.	Rat	450 ppm	4 hours
	LD50 Dermal	Rabbit	220 mg/kg	-
	LD50 Dermal	Rat	>2000 mg/kg	-
2,4,7,9-tetramethyldec-5-yne-4,7-diol	LD50 Oral	Rat	250 mg/kg	-
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>1860 mg/kg	-
3(2H)-Isothiazolone, 2-methyl-methanol	LD50 Oral	Rat	2131 mg/kg	-
	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
4-methylpentan-2-one	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	LC50 Inhalation Vapour	Rat	16.4 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	2080 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

SECTION 11: Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
MM 946 WaterBase 900+ Series Blue Green	13737.8	N/A	N/A	34.3	N/A
2-butoxyethanol	1200	N/A	N/A	3	N/A
3(2H)-Isothiazolone, 2-methyl-	100	300	N/A	0.5	N/A
methanol	100	300	64000	3	N/A
4-methylpentan-2-one	2080	N/A	N/A	11	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
2,4,7,9-tetramethyldec-5-yn-4,7-diol	Eyes - Severe irritant	Rabbit	-	0.1 MI	-
	Skin - Mild irritant	Rabbit	-	0.5 gm	-
(2-methoxymethylethoxy) propanol	Eyes - Mild irritant	Human	-	8 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
methanol	Skin - Mild irritant	Rabbit	-	500 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	40 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
4-methylpentan-2-one	Eyes - Moderate irritant	Rabbit	-	24 hours 100 uL	-
	Eyes - Severe irritant	Rabbit	-	40 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 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
methanol	Category 1	-	-
4-methylpentan-2-one	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

SECTION 11: Toxicological information

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
 irritation
 redness
Ingestion : No specific data.

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 : Not available.
General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
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
2-butoxyethanol	Acute EC50 911 mg/l	Algae - <i>Pseudokrichneriella subcapitata</i>	72 hours
	Acute EC50 1550 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 800000 µg/l Marine water	Crustaceans - Common shrimp, sand shrimp - <i>Crangon crangon</i>	48 hours
	Acute LC50 1250 ppm Marine water	Fish - Inland silverside - <i>Menidia beryllina</i>	96 hours
2,4,7,9-tetramethyldec-5-yne-4,7-diol	Chronic NOEC 100 mg/l	Daphnia - <i>Daphnia magna</i>	21 days
	Chronic NOEC >100 mg/l	Fish - <i>Brachydanio rerio</i>	21 days
	Acute EC50 82 mg/l	Algae - <i>Selenastrum capricornutum</i>	72 hours
(2-methoxymethylethoxy) propanol	Acute EC50 91 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 36 mg/l	Fish - <i>Elrits Pimephales</i>	96 hours
	Acute EC50 >1000 mg/l	Daphnia	48 hours
	Acute LC50 >1000 mg/l	Fish	96 hours

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3(2H)-Isothiazolone, 2-methyl- methanol 4-methylpentan-2-one	Acute EC50 0.157 mg/l	Algae - <i>pseudokirchneriella subcapitata</i>	72 hours
	Acute EC50 1.68 mg/l	Daphnia	48 hours
	Acute LC50 6 mg/l	Fish	96 hours
	Chronic NOEC 0.03 mg/l	Algae - <i>pseudokirchneriella subcapitata</i>	72 hours
	Chronic NOEC 0.55 mg/l	Daphnia	21 days
	Chronic NOEC 2.38 mg/l	Fish	28 days
	Acute EC50 16.912 mg/l Marine water	Algae - Green algae - <i>Ulva pertusa</i>	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - Common shrimp, sand shrimp - <i>Crangon crangon</i> - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 290 mg/l Fresh water	Fish - Zebra danio - <i>Danio rerio</i> - Egg	96 hours
Chronic NOEC 9.96 mg/l Marine water	Algae - Green algae - <i>Ulva pertusa</i>	96 hours	
EC50 400 mg/l	Algae	96 hours	
EC50 >200 mg/l	Daphnia - <i>Daphnia magna</i>	48 hours	
Acute LC50 505000 µg/l Fresh water	Fish - Fathead minnow - <i>Pimephales promelas</i>	96 hours	
Chronic NOEC 78 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i>	21 days	
Chronic NOEC 168 mg/l Fresh water	Fish - Fathead minnow - <i>Pimephales promelas</i> - Embryo	33 days	

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2-butoxyethanol	-	90.4 % - Readily - 28 days	-	-

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-butoxyethanol	-	-	Readily
4-methylpentan-2-one	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2-butoxyethanol	0.81	-	Low
(2-methoxymethylethoxy) propanol	0.004	-	Low
methanol	-0.77	<10	Low
4-methylpentan-2-one	1.9	-	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. Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

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

None of the components are listed.

Ozone depleting substances

SECTION 15: Regulatory information

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

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 not controlled under the Seveso Directive.

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not 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** : All components are listed or exempted.
- China** : All components are listed, exempted, or notified.
- Eurasian Economic Union** : **Russian Federation inventory**: Not determined.
- Japan** : **Japan inventory (CSCL)**: At least one component is not listed.
Japan inventory (ISHL): Not determined.
- New Zealand** : All components are listed or exempted.
- Philippines** : Not determined.
- Republic of Korea** : All components are listed, exempted, or notified.
- Taiwan** : Not determined.
- Thailand** : Not determined.
- Turkey** : Not determined.
- United States** : Not determined.
- 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
Skin Sens. 1, H317	Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic 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.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H370	Causes damage to organs.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
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 Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
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. Liq. 2	FLAMMABLE LIQUIDS - Category 2
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
Skin Sens. 1B	SKIN SENSITISATION - Category 1B
STOT SE 1	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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MM 946 WaterBase 900+ Series Blue Green

SECTION 16: Other information

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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.