



SAFETY DATA SHEET

2800HZ MULTI-MARKER

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

1.1 Product identifier

Product name : 2800HZ MULTI-MARKER
Product description : Aerosol. Paint
Product type : Aerosol.
UFI : 3Q90-A0HW-1009-KUX4

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

Identified uses	
Consumer use Industrial use Professional use	
Uses advised against	Reason
None identified.	-

1.3 Details of the supplier of the safety data sheet

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 Telephone no.: +44 (0) 191 4106611
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 enquiries@tor-coatings.com

e-mail address of person responsible for this SDS : rpmeurohas@rustoleum.eu

1.4 Emergency telephone number

National advisory body/Poison Centre

Supplier

Telephone number : +44 870 8200418 / +44 2038073798
Hours of operation : 24 / 7

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Aerosol 1, H222, H229
 Eye Irrit. 2, H319
 STOT SE 3, H336
 Aquatic Chronic 3, H412

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

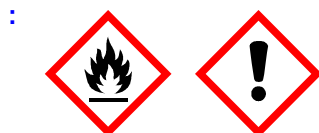
SECTION 2: Hazards identification

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

: Danger

Hazard statements

: Extremely flammable aerosol. Pressurised container: may burst if heated.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Harmful to aquatic life with long lasting effects.

Precautionary statements

General

: P103 - Read carefully and follow all instructions.
P102 - Keep out of reach of children.
P101 - If medical advice is needed, have product container or label at hand.

Prevention

: P280 - Wear eye or face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 - Do not spray on an open flame or other ignition source.
P271 - Use only outdoors or in a well-ventilated area.
P251 - Do not pierce or burn, even after use.

Response

: Not applicable.

Storage

: P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients

: Ethylacetate
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics

Supplemental label elements

: Not applicable.

Supplemental label elements : Detergents - Regulation (EC) No 907/2006

: 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

United Kingdom: Great Britain

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
dimethyl ether	EC: 204-065-8 CAS: 115-10-6	≥50 - ≤75	Flam. Gas 1A, H220	[2]
Ethylacetate	REACH #: 01-2119475103-46 EC: 205-500-4 CAS: 141-78-6 Index: 607-022-00-5	≥10 - <20	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	[1] [2]
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	REACH #: 01-2119463258-33 EC: 919-857-5 Index: 649-327-00-6	≤5	Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 EUH066	[1] [2]
1-methoxy-2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≤3	Flam. Liq. 3, H226 STOT SE 3, H336	[1] [2]
hydrocarbons, isoalkanes, C7-C9	REACH #: 01-2119471305-42 EC: 921-728-3 CAS: 64741-66-8	≤3	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	[1]
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	REACH #: 01-2119451093-47 EC: 229-934-9 CAS: 6846-50-0	≤3	Repr. 2, H361d Aquatic Chronic 3, H412	[1]
			See Section 16 for the full text of the H statements declared above.	

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

SCL (Specific Concentration Limits) Not applicable.	Not applicable.
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ATE (acute toxicity estimates) Not applicable.	Not applicable.
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2800HZ MULTI-MARKER

SECTION 3: Composition/information on ingredients

Nanoform Particle characteristics This product does not contains nanomaterials.	Particle Size Not applicable.
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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.

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.
- Inhalation** : 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. Get medical attention. If necessary, call a poison center or physician. 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** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. 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 necessary, call a poison center or 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.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : No specific data.

SECTION 4: First aid measures

Ingestion : No specific data.

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 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 : Extremely flammable aerosol. 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. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Additional information : Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not puncture, incinerate or store the container at temperatures above 49°C (120°F) or in direct sunlight. Container explosion may occur under fire conditions or when heated. Bursting aerosol containers may be propelled from a fire at high speed.

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. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

SECTION 6: Accidental release measures

- 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). Water polluting material. May be harmful to the environment if released in large quantities.
- 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.
- 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.

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. Empty containers retain product residue and can be hazardous.
- 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

Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store away 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. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

2800HZ MULTI-MARKER

SECTION 7: Handling and storage

Category	Notification and MAPP threshold	Safety report threshold
P3a	150 tonne	500 tonne

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters

Occupational exposure limits

United Kingdom: Great Britain

Product/ingredient name	Exposure limit values
dimethyl ether	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 958 mg/m ³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 766 mg/m ³ 8 hours. TWA: 400 ppm 8 hours.
Ethylacetate	EH40/2005 WELs (United Kingdom (UK), 8/2018). STEL: 400 ppm 15 minutes. TWA: 200 ppm 8 hours. STEL: 1468 mg/m ³ 15 minutes. TWA: 734 mg/m ³ 8 hours.
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	EH40/2005 WELs (United Kingdom (UK), 8/2007). STEL: 850 mg/m ³ , (as turpentine (150 ppm)) 15 minutes. Form: Vapour TWA: 566 mg/m ³ , (as turpentine (100 ppm)) 8 hours. Form: Vapour
1-methoxy-2-propanol	EH40/2005 WELs (United Kingdom (UK), 8/2018). Absorbed through skin. STEL: 560 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.

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

DNELs/DMELs

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects	
Ethylacetate	DNEL	Short term Inhalation	1468 mg/m ³	Workers	Local	
	DNEL	Short term Inhalation	1468 mg/m ³	Workers	Systemic	
	DNEL	Long term Inhalation	734 mg/m ³	Workers	Local	
	DNEL	Long term Inhalation	34 mg/m ³	Workers	Systemic	
	DNEL	Long term Dermal	63 mg/kg bw/day	Workers	Systemic	
	DNEL	Short term Inhalation	734 mg/m ³	General population [Consumers]	Local	
	DNEL	Short term Inhalation	734 mg/m ³	General population [Consumers]	Systemic	
	DNEL	Long term Inhalation	367 mg/m ³	General population [Consumers]	Local	
	DNEL	Long term Inhalation	367 mg/m ³	General population [Consumers]	Systemic	
	DNEL	Long term Dermal	37 mg/kg bw/day	General population [Consumers]	Systemic	
	DNEL	Long term Oral	4,5 mg/kg bw/day	General population [Consumers]	Systemic	
	hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	DNEL	Long term Dermal	208 mg/kg bw/day	Workers	Systemic
		DNEL	Long term Inhalation	871 mg/m ³	Workers	Systemic
DNEL		Long term Oral	125 mg/kg bw/day	General population [Consumers]	Systemic	
DNEL		Long term Inhalation	185 mg/m ³	General population [Consumers]	Systemic	
DNEL		Long term Dermal	125 mg/kg bw/day	General population [Consumers]	Systemic	
1-methoxy-2-propanol		DNEL	Short term Inhalation	553,5 mg/m ³	Workers	Local
		DNEL	Long term Inhalation	369 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	50,6 mg/kg bw/day	Workers	Systemic	
	DNEL	Long term Inhalation	43,9 mg/m ³	General population [Consumers]	Systemic	
	DNEL	Long term Dermal	18,1 mg/kg bw/day	General population [Consumers]	Systemic	
	DNEL	Long term Oral	3,3 mg/kg bw/day	General population [Consumers]	Systemic	
	hydrocarbons, isoalkanes, C7-C9	DNEL	Long term Dermal	773 mg/kg bw/day	Workers	Systemic
DNEL		Long term	2035 mg/	Workers	Systemic	

SECTION 8: Exposure controls/personal protection

	DNEL	Inhalation Long term Dermal	m ³ 699 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	608 mg/m ³	General population [Consumers]	Systemic
	DNEL	Long term Oral	699 mg/kg bw/day	General population [Consumers]	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
Ethylacetate	Fresh water	0,26 mg/l	-
	Marine	0,026 mg/l	-
	Fresh water sediment	0,34 mg/kg	-
	Marine water sediment	0,034 mg/kg	-
	Soil	0,22 mg/kg	-
	Sewage Treatment Plant	650 mg/l	-
1-methoxy-2-propanol	Fresh water	10 mg/l	-
	Fresh water sediment	41,6 mg/l	-
	Marine water sediment	4,17 mg/l	-
	Soil	2,47 mg/l	-
	Sewage Treatment Plant	100 mg/l	-

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. Use eye protection according to EN 166. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

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): nitrile rubber (0.5mm)
- The recommendation for the type or types of glove to use when handling this product is based on information from the following source: EN374. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods. Recommended: Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.
- 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: organic vapour (Type AX) and particulate filter (EN 140) .
- 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

- Physical state** : Liquid. [Aerosol.]
- Colour** : Blue. Green. Orange. Pink Red. Yellow. [Fluorescent]
- Odour** : Hydrocarbon.
- Odour threshold** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flammability (solid, gas)** : Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Slightly flammable in the presence of the following materials or conditions: shocks and mechanical impacts.
In use, may form flammable/explosive vapour-air mixture. Vapour may travel a considerable distance to source of ignition and flash back.
- Upper/lower flammability or explosive limits** : Lower: 3%
Upper: 18%
- Flash point** : Closed cup: -40°C (-40°F) [Setaflash / Tag (ASTM D56)]
- Auto-ignition temperature** : 350°C (662°F) [Literature]

SECTION 9: Physical and chemical properties

Decomposition temperature	: Not available.
pH	: Not applicable.
pH : Justification	: Product is non-soluble (in water).
Viscosity	: Not available.
Solubility(ies)	: Insoluble in the following materials: cold water and hot water.
Solubility in water	: Not available.
Partition coefficient: n-octanol/ water	: Not applicable.
Vapour pressure	: 420 kPa (3150,26 mm Hg) [calculated.]
Evaporation rate	: Not available.
Relative density	: 0,76 to 0,82 [calculated.]
Density	: 0,76 to 0,82 g/cm ³ [20°C (68°F)] [calculated.]
Vapour density	: >1 [Air = 1]
Explosive properties	: Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts. Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not puncture, incinerate or store the container at temperatures above 49°C (120°F) or in direct sunlight. Container explosion may occur under fire conditions or when heated. Bursting aerosol containers may be propelled from a fire at high speed.
Oxidising properties	: Not available.
<u>Particle characteristics</u>	
Median particle size	: Not applicable.

9.2 Other information

Heat of combustion : 23,62 kJ/g

Aerosol product

Type of aerosol : Spray

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).
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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
dimethyl ether	LC50 Inhalation Gas.	Mouse	386 ppm	0,5 hours
	LC50 Inhalation Gas.	Rat	308000 mg/m ³	1 hours
	LC50 Inhalation Gas.	Rat	164000 ppm	4 hours
Ethylacetate	LC50 Inhalation Vapour	Rat	309 g/m ³	4 hours
	LC50 Inhalation Vapour	Rat	>22,5 mg/l	6 hours
	LD50 Oral	Mouse	4100 mg/kg	-
	LD50 Oral	Rabbit	4935 mg/kg	-
	LD50 Oral	Rat	5620 mg/kg	-
1-methoxy-2-propanol	LC50 Inhalation Vapour	Rat	30,02 mg/l	4 hours
	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Mouse	11700 mg/kg	-
	LD50 Oral	Rat - Male, Female	4016 mg/kg	-
hydrocarbons, isoalkanes, C7-C9	LC50 Inhalation Vapour	Rat	>21 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

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)
dimethyl ether	N/A	N/A	164000	309	N/A
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	10000	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
hydrocarbons, isoalkanes, C7-C9	Skin - Erythema/Eschar	Rabbit	1	-	-
	Eyes - Redness of the conjunctivae	Rabbit	1	-	-
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	Skin - Oedema	Rabbit	0	-	-
	Eyes - Cornea opacity	Rabbit	0	-	-
	Skin - Mild irritant	Guinea pig	-	5 Grams	-
	Skin - Mild irritant	Human	-	504 hours 1 Percent Intermittent	-

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.

Eyes : Causes serious eye irritation.

Respiratory : May cause drowsiness or dizziness.

Sensitisation

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SECTION 11: Toxicological information

Product/ingredient name	Route of exposure	Species	Result
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	skin	Rabbit	Not sensitizing
hydrocarbons, isoalkanes, C7-C9	Respiratory	Rat	Not sensitizing

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.

Respiratory : Based on available data, the classification criteria are not met.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
hydrocarbons, isoalkanes, C7-C9	OECD 471	Subject: Bacteria	Negative

Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
hydrocarbons, isoalkanes, C7-C9	Negative	Negative	Negative	Rat	Oral	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Ethylacetate	Category 3	-	Narcotic effects
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	Category 3	-	Narcotic effects
1-methoxy-2-propanol	Category 3	-	Narcotic effects
hydrocarbons, isoalkanes, C7-C9	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Product/ingredient name	Result
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	ASPIRATION HAZARD - Category 1
hydrocarbons, isoalkanes, C7-C9	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Routes of entry anticipated: Dermal, Inhalation.
Routes of entry not anticipated: Oral.

Potential acute health effects

Eye contact : Causes serious eye irritation.

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

Skin contact : No known significant effects or critical hazards.

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

SECTION 11: Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : No specific data.
- 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** : Based on available data, the classification criteria are not met.
- 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.

Endocrine disrupting properties : Not available.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Ethylacetate	Acute EC50 5600 mg/l	Algae - Scenedesmus subspicatus	72 hours
	Acute EC50 165 mg/l Fresh water	Daphnia spec. - Daphnia Cucullata	48 hours
	Acute LC50 230 mg/l Fresh water	Fish - Pimephales promelas	48 hours
	Chronic NOEC 2,4 mg/l Fresh water	Daphnia spec. - Daphnia magna	21 days
	Chronic NOEC 6,9 mg/l Fresh water	Fish - Pimephales promelas	6,9 hours
	Acute NOEC 100 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
hydrocarbons, C9-C11, n-/iso-/ cyclo-alkanes, < 2% aromatics	Chronic NOEC 0,23 mg/l	Daphnia spec.	-
	Chronic NOEC 0,131 mg/l	Fish	-
1-methoxy-2-propanol	Acute EC50 >1000 mg/l	Algae - Selenastrum	7 days

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hydrocarbons, isoalkanes, C7-C9	Acute EC50 23300 mg/l Acute LC50 6812 mg/l Fresh water Acute EC50 29 mg/l	capricomutum Daphnia spec. Fish Algae - pseudokirchneriella subcapitata	96 hours 96 hours 72 hours
	Acute EC50 2,4 mg/l Acute LC50 18,4 mg/l Acute NOEC 6,3 mg/l	Daphnia spec. Fish Algae - pseudokirchneriella subcapitata	48 hours 96 hours 72 hours
	Chronic NOEC 0,17 mg/l	Daphnia spec.	21 days

Conclusion/Summary : Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Ethylacetate hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	OECD 301D	70 % - Readily - 28 days	-	-
	OECD 301B	>80 % - Readily - 28 days	-	-
1-methoxy-2-propanol	OECD 301F	>80 % - Readily - 28 days	-	-
	OECD 301E	96 % - Readily - 28 days	-	-
	-	>90 % - Readily - 5 days	1,95 gO ₂ /g ThOD	-
hydrocarbons, isoalkanes, C7-C9	OECD 301C	88 to 92 % - Readily - 28 days	-	-
	-	22 % - 28 days	-	-
1-isopropyl- 2,2-dimethyltrimethylene diisobutyrate	-	70,73 % - Readily - 28 days	-	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Ethylacetate	-	-	Readily
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	-	100%; < 28 day(s)	Readily
1-methoxy-2-propanol	Fresh water <28 days, 5 to 25°C	-	Readily
hydrocarbons, isoalkanes, C7-C9	-	-	Inherent
1-isopropyl- 2,2-dimethyltrimethylene diisobutyrate	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
dimethyl ether	0,07	-	low
Ethylacetate	0,68	30	low
hydrocarbons, C9-C11, n-/ iso-/ cyclo-alkanes, < 2% aromatics	5 to 6.5	-	high
1-methoxy-2-propanol	<1	<100	low
hydrocarbons, isoalkanes, C7-C9	4.3 to 5.1	10 to 2500	high
1-isopropyl- 2,2-dimethyltrimethylene diisobutyrate	4,1	5340	high

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SECTION 12: Ecological information

12.4 Mobility in soil

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

Mobility : Volatile.

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 Endocrine disrupting properties : No known significant effects or critical hazards.

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

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

13.1 Waste treatment methods

Product

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





Hazardous waste : Yes.

European waste catalogue (EWC)

Waste code	Waste designation
20 01 27*	paint, inks, adhesives and resins containing hazardous substances

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN1950	UN1950	UN1950	UN1950
14.2 UN proper shipping name	AEROSOLS, flammable	AEROSOLS, flammable	AEROSOLS, flammable	AEROSOLS, flammable
14.3 Transport hazard class(es)	2 	2 	2.1 	2.1 
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

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SECTION 14: Transport information

Additional information	Limited quantity : ≤ 1L Tunnel code (D) Remarks Limited Quantity - ADR/IMDG 3.4		Emergency schedules F-D, S-U Remarks : ≤ 1L: Limited Quantity - IMDG 3.4	Quantity limitation Passenger and Cargo Aircraft: 75 kg. Packaging instructions: 203. Cargo Aircraft Only: 150 kg. Packaging instructions: 203. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y203.
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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

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

[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.

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

[Other EU regulations](#)

VOC :

VOC for Ready-for-Use Mixture : Exempt

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

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

[Ozone depleting substances \(1005/2009/EC\)](#)

Not listed.

[Prior Informed Consent \(PIC\) \(649/2012/EC\)](#)

Not listed.

[Persistent Organic Pollutants \(850/2004/EC\)](#)

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SECTION 15: Regulatory information

Not listed.

Aerosol dispensers

: **UK
CA**



Extremely flammable

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

P3a

United Kingdom: Great Britain

References

: EH40/2005 Workplace exposure limits
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

International regulations

Stockholm Convention on Persistent Organic Pollutants

List name	Ingredient name	Status
Not listed.		

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

List name	Ingredient name	Status
Not listed.		

CN code : 3208 20 90 00

Inventory list

Australia	: Not determined.
Canada	: Not determined.
China	: All components are listed or exempted.
Europe	: Not determined.
Japan	: Japan inventory (CSCL) : Not determined. Japan inventory (ISHL) : Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.

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SECTION 15: Regulatory information

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
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- 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 according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Aerosol 1, H222, H229	Expert judgment
Eye Irrit. 2, H319	Expert judgment
STOT SE 3, H336	Expert judgment
Aquatic Chronic 3, H412	Expert judgment

Full text of abbreviated H statements

United Kingdom: Great Britain

Full text of abbreviated H statements :	H220	Extremely flammable gas.
	H222, H229	Extremely flammable aerosol. Pressurised container: may burst if heated.
	H225	Highly flammable liquid and vapour.
	H226	Flammable liquid and vapour.
	H304	May be fatal if swallowed and enters airways.
	H315	Causes skin irritation.
	H319	Causes serious eye irritation.
	H336	May cause drowsiness or dizziness.
	H361d	Suspected of damaging the unborn child.
	H411	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.

Full text of classifications [CLP/GHS]

Aerosol 1	AEROSOLS - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Gas 1A	FLAMMABLE GASES - Category 1A
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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SECTION 16: Other information

Date of issue/ Date of revision : 5/05/2021

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Version : 5

[Notice to reader](#)

IMPORTANT NOTE: The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user's responsibility to verify that this data sheet is current prior to using the product to which it relates. Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

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