



DRIVING SURFACE PERFECTION

RAPTOR FLAMEPROOF PRIMER GRAY

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
SDS ID: UP4940-US-SDS
Issue date: 6/6/2023 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : RAPTOR FLAMEPROOF PRIMER GRAY
Product code : RFLPG/AL
UP Number : UP4940

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Coatings and paints, thinners, paint removers
Recommended use : Coatings and paints, thinners, paint removers

1.3. Supplier

Distributor

U-POL US Inc Inc.
50 Applied Bank Blvd., Suite 300 Glen Mills
Pennsylvania, PA 19342
United States
T (610) 746 7081
technicalsupport@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

Emergency number : Australia (CHEMTREC): + (61) - 290372994

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable aerosol Category 1	Extremely flammable aerosol
Gases under pressure Liquefied gas	Contains gas under pressure; may explode if heated
Serious eye damage/eye irritation Category 2	Causes serious eye irritation
Skin sensitization, Category 1	May cause an allergic skin reaction
Carcinogenicity Category 2	Suspected of causing cancer
Reproductive toxicity Category 2	Suspected of damaging fertility or the unborn child
Specific target organ toxicity – Single exposure, Category 3, Narcosis	May cause drowsiness or dizziness
Specific target organ toxicity (repeated exposure) Category 2	May cause damage to organs through prolonged or repeated exposure

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

Extremely flammable aerosol
Contains gas under pressure; may explode if heated
May cause an allergic skin reaction
Causes serious eye irritation

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Precautionary statements (GHS US) :

- May cause drowsiness or dizziness
- Suspected of causing cancer
- Suspected of damaging fertility or the unborn child
- May cause damage to organs through prolonged or repeated exposure
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Do not spray on an open flame or other ignition source.
- Pressurized container: Do not pierce or burn, even after use.
- Do not breathe fume, spray, vapors.
- Wash hands thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- Contaminated work clothing must not be allowed out of the workplace.
- Wear eye protection, protective clothing, protective gloves.
- If on skin: Wash with plenty of water.
- If inhaled: Remove person to fresh air and keep comfortable for breathing.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If exposed or concerned: Get medical advice/attention.
- If skin irritation or rash occurs: Get medical advice/attention.
- If eye irritation persists: Get medical advice/attention.
- Wash contaminated clothing before reuse.
- Store in a well-ventilated place. Keep container tightly closed.
- Store locked up.
- Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
- Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
methyl acetate	CAS-No.: 79-20-9	23 – 43	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	CAS-No.: 13463-67-7	5 – 23	Carc. 2, H351
n-butyl acetate	CAS-No.: 123-86-4	< 5	Flam. Liq. 3, H226 STOT SE 3, H336

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Name	Product identifier	%	GHS US classification
Xylene	CAS-No.: 1330-20-7	< 5	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304
ethylbenzene	CAS-No.: 100-41-4	< 5	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:vapour), H332 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304
fatty acids, C14-18 and C16-18-unsatd., maleated	CAS-No.: 85711-46-2	< 5	Skin Irrit. 2, H315 Skin Sens. 1, H317
hexanoic acid, 2-ethyl-, zinc salt, basic	CAS-No.: 85203-81-2	< 5	Eye Irrit. 2, H319 Repr. 2, H361 Aquatic Chronic 3, H412

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects	: May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
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5.2. Specific hazards arising from the chemical

Fire hazard	: Extremely flammable aerosol.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

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5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe fume, spray, vapors. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe fume, spray, vapors. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Protect from sunlight. Store in a well-ventilated place. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store locked up. Keep container tightly closed. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available

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methyl acetate (79-20-9)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Methyl acetate
ACGIH OEL TWA [ppm]	200 ppm
ACGIH OEL STEL [ppm]	250 ppm
Remark (ACGIH)	TLV® Basis: Headache; dizziness; nausea; eye dam (degeneration of ganglion cells in the retina)
Regulatory reference	ACGIH 2021
USA - OSHA - Occupational Exposure Limits	
Local name	Methyl acetate
OSHA PEL (TWA) [1]	610 mg/m³
OSHA PEL (TWA) [2]	200 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Xylene (1330-20-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Xylene, mixed isomers (Dimethylbenzene)
ACGIH OEL TWA [ppm]	20 ppm
Remark (ACGIH)	TLV® Basis: URT & eye irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH 2021
USA - ACGIH - Biological Exposure Indices	
Local name	XYLENES (Technical or commercial grade)
BEI (BLV)	1.5 g/g Kreatinin Parameter: Methylhippuric acids - Medium: urine - Sampling time: End of shift
Regulatory reference	ACGIH 2021
USA - OSHA - Occupational Exposure Limits	
Local name	Xylenes (o-, m-, p-isomers)
OSHA PEL (TWA) [1]	435 mg/m³
OSHA PEL (TWA) [2]	100 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
ethylbenzene (100-41-4)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Ethylbenzene
ACGIH OEL TWA [ppm]	20 ppm
Remark (ACGIH)	TLV® Basis: URT irr; kidney dam (nephropathy); cochlear impair. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEI
Regulatory reference	ACGIH 2021
USA - ACGIH - Biological Exposure Indices	
Local name	ETHYLBENZENE

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ethylbenzene (100-41-4)	
BEI (BLV)	0.15 g/g Kreatinin Parameter: Sum of mandelic acid and phenylglyoxylic acid (with hydrolysis) - Medium: urine - Sampling time: End of shift - Notations: Ns
Regulatory reference	ACGIH 2021
USA - OSHA - Occupational Exposure Limits	
Local name	Ethyl benzene
OSHA PEL (TWA) [1]	435 mg/m ³
OSHA PEL (TWA) [2]	100 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
fatty acids, C14-18 and C16-18-unsatd., maleated (85711-46-2)	
No additional information available	
n-butyl acetate (123-86-4)	
USA - ACGIH - Occupational Exposure Limits	
Local name	n-Butyl acetate
ACGIH OEL TWA [ppm]	50 ppm
ACGIH OEL STEL [ppm]	150 ppm
Remark (ACGIH)	TLV® Basis: Eye & URT irr
Regulatory reference	ACGIH 2021
USA - OSHA - Occupational Exposure Limits	
Local name	n-Butyl-acetate
OSHA PEL (TWA) [1]	710 mg/m ³
OSHA PEL (TWA) [2]	150 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
hexanoic acid, 2-ethyl-, zinc salt, basic (85203-81-2)	
No additional information available	
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Titanium dioxide
ACGIH OEL TWA	0.2 mg/m ³ (Respirable fraction) 2.5 mg/m ³ (Respirable fraction)
Remark (ACGIH)	TLV® Basis: LRT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2021
USA - OSHA - Occupational Exposure Limits	
Local name	Titanium dioxide (Total dust)
OSHA PEL (TWA) [1]	15 mg/m ³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

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Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: Light gray
Odor	: characteristic
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: -41 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Extremely flammable aerosol.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 0.871 g/cm ³
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

VOC content	: 575 g/l
As Packaged Regulatory VOC	: 530 g/l (4.42 lbs/gal)

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As Packaged Actual VOC	: 470 g/l (3.92 lbs/gal)
As Applied Regulatory VOC	: 641 g/l (5.35 lbs/gal)
As Applied Actual VOC	: 473 g/l (3.95 lbs/gal)
Percent Solids	: 17.65 wt%
Percent Solids	: 7.17 vol %
Volatiles	: 82.4 wt%
Water Content	: 0 wt%
Water Content	: 0 vol %
Exempt Compounds by weight	: 28 wt%
Exempt Compounds by volume	: 26.1 vol %
Maximum Incremental Reactivity (MIR)	: 0.72
MIR EPA Aerosol Category	: High Temperature Coating - HTC 1.85
MIR CARB Aerosol Category	: High Temperature Coating - Specialty Coatings (B) - HTC 1.85
Bay Area Aerosol Category	: Speciality Coatings - High Temperature Coating - max. 80% VOC

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

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 (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

methyl acetate (79-20-9)	
LD50 oral rat	6482 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	49 mg/l
ATE US (oral)	6482 mg/kg body weight
ATE US (vapors)	49 mg/l/4h

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methyl acetate (79-20-9)	
ATE US (dust, mist)	49 mg/l/4h
Xylene (1330-20-7)	
LD50 oral rat	> 4000 mg/kg body weight (Equivalent or similar to EU Method B.1, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	12126 mg/kg (Non-GLP, read-across from supporting substance, single dermal dose under occlusion followed by observation for 14 days)
LD50 dermal rabbit	12126 mg/kg body weight Animal: rabbit, Animal sex: male
LC50 Inhalation - Rat	29.09 mg/l (Equivalent or similar to EU Method B.2, 4 h, Rat, Male, Experimental value, Inhalation (vapours), 14 day(s))
LC50 Inhalation - Rat [ppm]	6700 ppm/4h (EU Method B.2 (Acute Toxicity (Inhalation)), 4h, rat, male)
ATE US (dermal)	1100 mg/kg body weight
ATE US (gases)	6700 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h
ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	15433 mg/kg body weight (24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	17.8 mg/l (4 h, Rat, Male, Experimental value, Inhalation (vapours), 14 day(s))
ATE US (oral)	3500 mg/kg body weight
ATE US (dermal)	15433 mg/kg body weight
ATE US (vapors)	17.8 mg/l/4h
ATE US (dust, mist)	17.8 mg/l/4h
fatty acids, C14-18 and C16-18-unsatd., maleated (85711-46-2)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
n-butyl acetate (123-86-4)	
LD50 oral rat	10760 – 12789 mg/kg body weight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 14112 mg/kg body weight (Equivalent or similar to OECD 402, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	23.4 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Inhalation (mixture of vapour and aerosol), 14 day(s))
LC50 Inhalation - Rat [ppm]	390 ppm/4h
ATE US (oral)	10760 mg/kg body weight
ATE US (gases)	390 ppmV/4h
ATE US (vapors)	23.4 mg/l/4h
ATE US (dust, mist)	23.4 mg/l/4h

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hexanoic acid, 2-ethyl-, zinc salt, basic (85203-81-2)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 5.7 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
LD50 oral rat	> 5000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 5.09 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.
Xylene (1330-20-7)	
IARC group	3 - Not classifiable
ethylbenzene (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
IARC group	2B - Possibly carcinogenic to humans
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: May cause drowsiness or dizziness.
methyl acetate (79-20-9)	
STOT-single exposure	May cause drowsiness or dizziness.
Xylene (1330-20-7)	
STOT-single exposure	May cause respiratory irritation.
n-butyl acetate (123-86-4)	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
methyl acetate (79-20-9)	
LOAEC (inhalation, rat, vapor, 90 days)	2000 mg/l
NOAEC (inhalation, rat, vapor, 90 days)	1057 mg/m ³
Xylene (1330-20-7)	
LOAEL (oral, rat, 90 days)	150 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
ethylbenzene (100-41-4)	
NOAEL (oral, rat, 90 days)	75 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

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ethylbenzene (100-41-4)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
fatty acids, C14-18 and C16-18-unsatd., maleated (85711-46-2)	
NOAEL (oral,rat,90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
hexanoic acid, 2-ethyl-, zinc salt, basic (85203-81-2)	
NOAEL (subchronic,oral,animal/male,90 days)	180 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: other:TSCA (1992) health Effects Testing Guidelines for Subchronic Oral Toxicity Studies. Title 40, CFR 798. 2650.
NOAEL (subchronic,oral,animal/female,90 days)	205 mg/kg body weight Animal: mouse, Animal sex: female, Guideline: other:TSCA (1992) health Effects Testing Guidelines for Subchronic Oral Toxicity Studies. Title 40, CFR 798. 2650.

Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects	: May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
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methyl acetate (79-20-9)	
LC50 - Fish [1]	250 – 350 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	1026.7 mg/l Test organisms (species): Daphnia magna
Xylene (1330-20-7)	
LC50 - Fish [1]	2.6 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia
ErC50 algae	4.36 mg/l (OECD 201: Alga, Growth Inhibition Test, 73 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'
ethylbenzene (100-41-4)	
LC50 - Fish [1]	5.1 mg/l Test organisms (species): Menidia menidia
EC50 - Crustacea [1]	1.8 – 2.4 mg/l (US EPA, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
LOEC (chronic)	1.7 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC (chronic)	0.96 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
fatty acids, C14-18 and C16-18-unsatd., maleated (85711-46-2)	
LC50 - Fish [1]	≥ 1.17 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	> 5.3 mg/l Test organisms (species): Daphnia magna

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n-butyl acetate (123-86-4)	
LC50 - Fish [1]	18 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	44 mg/l Test organisms (species): Daphnia sp.
LC50 - Fish [2]	62 mg/l (Leuciscus idus, static system)
ErC50 algae	397 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Read-across, GLP)
NOEC (chronic)	23 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic crustacea	23 mg/l

hexanoic acid, 2-ethyl-, zinc salt, basic (85203-81-2)	
LC50 - Fish [1]	100 mg/l Test organisms (species): Cyprinus carpio
EC50 - Crustacea [1]	0.147 ml/l (Daphnia magna)

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
LC50 - Fish [1]	155 mg/l Test organisms (species): other:Japanese Medaka
EC50 - Crustacea [1]	19.3 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	27.8 mg/l Test organisms (species): Daphnia magna
ErC50 algae	61 mg/l (EPA 600/9-78-018, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
NOEC (chronic)	≥ 2.92 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

12.2. Persistence and degradability

methyl acetate (79-20-9)	
Persistence and degradability	Readily biodegradable in water.

Xylene (1330-20-7)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.

ethylbenzene (100-41-4)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.44 g O ₂ /g substance
Chemical oxygen demand (COD)	2.1 g O ₂ /g substance
ThOD	3.17 g O ₂ /g substance

n-butyl acetate (123-86-4)	
Persistence and degradability	Readily biodegradable in water.
ThOD	2.21 g O ₂ /g substance

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

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12.3. Bioaccumulative potential

methyl acetate (79-20-9)	
BCF - Fish [1]	< 1 (Pisces, Literature study)
Partition coefficient n-octanol/water (Log Pow)	0.18 (Experimental value, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Xylene (1330-20-7)	
BCF - Fish [1]	7.2 – 25.9 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Read-across)
Partition coefficient n-octanol/water (Log Pow)	3.2 (Read-across, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
ethylbenzene (100-41-4)	
BCF - Fish [1]	1 (6 week(s), Oncorhynchus kisutch, Flow-through system, Salt water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	3.6 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
n-butyl acetate (123-86-4)	
Partition coefficient n-octanol/water (Log Pow)	2.3 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

methyl acetate (79-20-9)	
Surface tension	24 mN/m (20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.18 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Ecology - soil	Highly mobile in soil.
Xylene (1330-20-7)	
Surface tension	28.01 – 29.76 mN/m (25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.73 (log Koc, Equivalent or similar to OECD 121, Read-across)
Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.
ethylbenzene (100-41-4)	
Surface tension	71.2 mN/m (23 °C, 0.058 g/l, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, QSAR)
Ecology - soil	Low potential for adsorption in soil. Toxic to soil organisms.

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n-butyl acetate (123-86-4)	
Surface tension	61.3 mN/m (20 °C, 0.1 %, OECD 115: Surface Tension of Aqueous Solutions)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.268 – 1.844 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil. Not toxic to plants.
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
Surface tension	No data available in the literature
Ecology - soil	Low potential for mobility in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

14.1. UN number

DOT NA No : UN1950
UN-No. (TDG) : UN1950
UN-No. (IMDG) : 1950
UN-No. (IATA) : 1950

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Aerosols
Proper Shipping Name (TDG) : AEROSOLS
Proper Shipping Name (IMDG) : AEROSOLS
Proper Shipping Name (IATA) : Aerosols, flammable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 2.1
Hazard labels (DOT) : 2.1

TDG

Transport hazard class(es) (TDG) : 2.1
Hazard labels (TDG) : 2.1

IMDG

Transport hazard class(es) (IMDG) : 2.1
Hazard labels (IMDG) : 2.1



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IATA

Transport hazard class(es) (IATA) : 2.1
Hazard labels (IATA) : 2.1



14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (TDG) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN1950
DOT Special Provisions (49 CFR 172.102) : N82 - See 173.306 of this subchapter for classification criteria for flammable aerosols.
DOT Packaging Exceptions (49 CFR 173.xxx) : 306
DOT Packaging Non Bulk (49 CFR 173.xxx) : None
DOT Packaging Bulk (49 CFR 173.xxx) : None
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 75 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 150 kg
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other : 25 - Protected from sources of heat, 87 - Stow "separated from" Class 1 (explosives) except Division 14, 126 - Segregation same as for Class 9, miscellaneous hazardous materials

TDG

UN-No. (TDG) : UN1950
TDG Special Provisions : 80 - Despite section 1.17 of Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases), a person must not offer for transport or transport these dangerous goods unless they are in a means of containment that is in compliance with the requirements for transporting gases in Part 5 (Means of Containment), 107 - (1) These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to the handling, offering for transport or transporting of UN1950, AEROSOLS, and UN2037, GAS CARTRIDGES, that contain dangerous goods included in Class 2.1 or Class 2.2 and that are transported on a road vehicle, a railway vehicle or a vessel on a domestic voyage, if the aerosols or gas cartridges have a capacity less than or equal to 50 mL.
(2) Subsection (1) does not apply to self-defence spray.
Explosive Limit and Limited Quantity Index : 1 L
Excepted quantities (TDG) : E0
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 75 L
Emergency Response Guide (ERG) Number : 126

IMDG

Special provision (IMDG) : 63, 190, 277, 327, 344, 381, 959
Packing instructions (IMDG) : P207, LP200
Packing provisions (IMDG) : PP87, L2

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EmS-No. (Fire) : F-D - FIRE SCHEDULE Delta - FLAMMABLE GASES
EmS-No. (Spillage) : S-U - SPILLAGE SCHEDULE Uniform - GASES (FLAMMABLE, TOXIC OR CORROSIVE)
Stowage category (IMDG) : None

IATA

PCA Excepted quantities (IATA) : E0
PCA Limited quantities (IATA) : Y203
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 203
PCA max net quantity (IATA) : 75kg
CAO packing instructions (IATA) : 203
CAO max net quantity (IATA) : 150kg
Special provision (IATA) : A145, A167, A802
ERG code (IATA) : 10L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
methyl acetate	79-20-9	Present	Active	
Xylene	1330-20-7	Present	Active	
ethylbenzene	100-41-4	Present	Active	
fatty acids, C14-18 and C16-18-unsatd., maleated	85711-46-2	Present	Active	PMN
n-butyl acetate	123-86-4	Present	Active	
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]	13463-67-7	Present	Active	

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Xylene	CAS-No. 1330-20-7	< 5%
ethylbenzene	CAS-No. 100-41-4	< 5%

Xylene (1330-20-7)

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ 100 lb

ethylbenzene (100-41-4)

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ 1000 lb

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n-butyl acetate (123-86-4)

CERCLA RQ

5000 lb

15.2. International regulations

CANADA

methyl acetate (79-20-9)

Listed on the Canadian DSL (Domestic Substances List)

Xylene (1330-20-7)

Listed on the Canadian DSL (Domestic Substances List)

ethylbenzene (100-41-4)

Listed on the Canadian DSL (Domestic Substances List)

fatty acids, C14-18 and C16-18-unsatd., maleated (85711-46-2)

Listed on the Canadian NDSL (Non-Domestic Substances List)

n-butyl acetate (123-86-4)

Listed on the Canadian DSL (Domestic Substances List)

hexanoic acid, 2-ethyl-, zinc salt, basic (85203-81-2)

Listed on the Canadian DSL (Domestic Substances List)

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

ethylbenzene (100-41-4)

Listed on IARC (International Agency for Research on Cancer)

n-butyl acetate (123-86-4)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)

Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

WARNING:

This product can expose you to ethylbenzene, which is known to the State of California to cause cancer, and toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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Component	State or local regulations
methyl acetate(79-20-9)	U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
Xylene(1330-20-7)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
ethylbenzene(100-41-4)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
n-butyl acetate(123-86-4)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter \leq 10 μm](13463-67-7)	U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

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