

Safety Data Sheet RLOGAL-R-US-SDS

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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SECTION 1: Identification	
1.1. Identification	
Product form	: Mixture
Trade name	: RAPTOR 2K PROTECTIVE COATING OLIVE GREEN AEROSOL
UP Number	UP4887
1.2. Recommended use and restrictions	s on use
Use of the substance/mixture	: Coatings and paints, thinners, paint removers
Recommended use	: Coating
Restrictions on use	: Consumer uses: Private households (= general public = consumers)
1.3. Supplier	
Supplier U-POL US Inc 108 Commerce Way Easton, PA 18040 - United States T 1-800-340-7824 - F 1-800-787-5150 technicalsupport@u-pol.com - www.u-pol.com	
1.4. Emergency telephone number	
Emergency number	: CHEMTREC - 1-800-424-9300
SECTION 2: Hazard(s) identification	
2.1. Classification of the substance or r	
GHS US classification	
Flammable aerosol Category 1	Extremely flammable aerosol
Serious eye damage/eye irritation Category 2 Skin sensitization, Category 1	Causes serious eye irritation May cause an allergic skin reaction
2.2. GHS Label elements, including pre-	cautionary statements
GHS US labeling	
Hazard pictograms (GHS US)	
Signal word (GHS US)	: Danger
Hazard statements (GHS US)	: Extremely flammable aerosol May cause an allergic skin reaction
Precautionary statements (GHS US)	Causes serious eye irritation : If medical advice is needed, have product container or label at hand. Keep out of reach of children.
	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Pressurized container: Do not pierce or burn, even after use. Avoid breathing spray, vapors, fume. Wear eye protection, protective gloves, protective clothing. 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 i	in classification

2.3. Other hazards which do not result in classification

2.4. Unknown acute toxicity (GHS US)

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable 3.2. Mixtures

Name	Product identifier	%	GHS US classification
acetone	(CAS-No.) 67-64-1	5 – 23	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
hexamethylene diisocyanate oligomers	(CAS-No.) 28182-81-2	5 – 23	Acute Tox. 4 (Inhalation), H332 Skin Sens. 1, H317 STOT SE 3, H335
n-butyl acetate	(CAS-No.) 123-86-4	< 23	Flam. Liq. 3, H226 STOT SE 3, H336
reaction mass of ethylbenzene, m-xylene and p-xylene		< 5	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304
kieselguhr, soda ash flux calcined	(CAS-No.) 68855-54-9	< 5	STOT RE 2, H373
reaction mass of α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4- hydroxyphenyl)propionyl- ω -hydroxypoly(oxyethylene) and α - 3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4- hydroxyphenyl)propionyl- ω -3-(3-(2H-benzotriazol-2-yl)-5-tert- butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene)		< 5	Skin Sens. 1A, H317 Aquatic Chronic 2, H411
reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	(CAS-No.) 1065336-91-5	< 5	Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
carbon black	(CAS-No.) 1333-86-4	< 5	Carc. 2, H351

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 effect	cts (acute and delayed)	
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.	
5.2. Specific hazards arising from the cl	nemical	
Fire hazard	: Extremely flammable aerosol.	
Explosion hazard	: Pressurized container: may burst if heated.	
Reactivity	: Extremely flammable aerosol. Pressurized container: may burst if heated.	
5.3. Special protective equipment and p	recautions for fire-fighters	
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.	

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SECTION 6: Accidental release measures		
6.1. Personal precautions, protective ec	uipment and emergency procedures	
6.1.1. For non-emergency personnel		
Emergency procedures	: No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing fume, vapors, spray.	
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. Notify authori	ties if product enters sewers or public waters.	
6.3. Methods and material for containm	ent 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	: Ensure good ventilation of the work station. 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. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid contact with skin and eyes. Avoid breathing vapors, fume, spray.	
Hygiene measures	: Separate working clothes from town clothes. Launder separately. 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, include	ng any incompatibilities	
Storage conditions	 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store locked up. Store in a well-ventilated place. Keep cool. 	

SECTION 8: Ex	posure controls/	personal	protection

8.1. Control parameters

n-butyl acetate (123-86	ĵ-4)	
ACGIH	Local name	n-Butyl acetate
ACGIH	ACGIH OEL TWA [ppm]	50 ppm
ACGIH	ACGIH OEL STEL [ppm]	150 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: Eye & URT irr
ACGIH	Regulatory reference	ACGIH 2021
OSHA	OSHA PEL (TWA) [1]	710 mg/m ³
OSHA	OSHA PEL (TWA) [2]	150 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
acetone (67-64-1)		
ACGIH	Local name	Acetone
ACGIH	ACGIH OEL TWA [ppm]	250 ppm
ACGIH	ACGIH OEL STEL [ppm]	500 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: URT & eye irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI
ACGIH	Regulatory reference	ACGIH 2021
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acetone (67-64-1)		
OSHA	OSHA PEL (TWA) [1]	2400 mg/m ³
OSHA	OSHA PEL (TWA) [2]	1000 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
kieselguhr, soda ash flux ca	lcined (68855-54-9)	
Not applicable		
reaction mass of ethylbenze	ne, m-xylene and p-xylene	
Not applicable		
reaction mass of α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene) and α-3-(3-(2H- benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4- hydroxyphenyl)propionyloxypoly(oxyethylene)		
Not applicable		
reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)		
Not applicable		
hexamethylene diisocyanate	e oligomers (28182-81-2)	
Not applicable		
carbon black (1333-86-4)		
ACGIH	Local name	Carbon black
ACGIH	ACGIH OEL TWA	3 mg/m ³ (Inhalable fraction)
ACGIH	Remark (ACGIH)	TLV® Basis: Bronchitis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
ACGIH	Regulatory reference	ACGIH 2021
OSHA	OSHA PEL (TWA) [1]	3.5 mg/m ³
	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

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

: 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

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Appearance	: aerosol.		
Color	: Green		
Odor	: characteristic		
Odor threshold	: No data available		
pH	: No data available		
Melting point	: Not applicable		
Freezing point	: No data available		
Boiling point	: No data available		
Flash point	: No data available		
Relative evaporation rate (butyl acetate=1)	: No data available		
Flammability (solid, gas)	: Extremely flammable aero	sol.	
Vapor pressure	: No data available		
Relative vapor density at 20 °C	: No data available		
Relative density	: No data available		
Density	: 0.963 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		
No data availableViscosity, kinematic	: No data available		
Viscosity, dynamic	: No data available		
Explosion limits	: No data available		
Explosive properties	: Pressurized container: ma	v burst if heated	
Oxidizing properties	: No data available		
9.2. Other information			
As Backaged Begulatory VOC	= 501 a/l (4.1 lb/ccl)		
As Packaged Regulatory VOC	: 501 g/l (4.1 lb/gal)		
As Packaged Actual VOC As Applied Regulatory VOC	: 444 g/l (3.7 lb/gal)		
	: 501 g/l (4.1 lb/gal)		
As Applied Actual VOC Water Content	: 444 g/l (3.7 lb/gal) 0 wt%		
Volatiles % EPA HAPS	: 55.5 wt% : 3.7 wt%		
Percent Solids	: 3.7 wt%		
	: 44.48 wt% : 27.65 vol %		
Percent Solids	27.65 VOI %		
Movimum Incomental Departicity (MID)			
Maximum Incremental Reactivity (MIR)	: 0.8		
MIR EPA Aerosol Category	: Non-Flat Coating - NFP 1.4		
MIR CARB Aerosol Category	: Nonflat Coating - General C	Ualings - INFF 0.90	
SECTION 10: Stability and reactivity			
10.1. Reactivity			
Extremely flammable aerosol. Pressurized container: may burst if heated.			
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			
	e no enarke. Eliminata all acura	as of ignition	
Avoid contact with hot surfaces. Heat. No flames	s, no sparks. Enfimiliate all Sourc		
10.5. Incompatible materials			
No additional information available			
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10.6.	Hazardous	decomposition	products

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

ECTION 11: Toxicological info	
1.1. Information on toxicological	
cute toxicity (oral)	: Not classified
cute toxicity (dermal)	: Not classified
cute toxicity (inhalation)	: Not classified
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)
LD50 dermal rabbit	14112 mg/kg body weight (Equivalent or similar to OECD 402, Rabbit, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat [ppm]	390 ppm/4h
ATE US (oral)	10760 mg/kg body weight
ATE US (dermal)	14112 mg/kg body weight
ATE US (gases)	390 ppmV/4h
acetone (67-64-1)	
LD50 oral rat	5800 mg/kg body weight Animal: rat, Animal sex: female
LD50 dermal rabbit	20000 mg/kg (Equivalent or similar to OECD 402, Rabbit, Male, Experimental value, Dermal)
LC50 Inhalation - Rat	76 mg/l air Animal: rat, Animal sex: female, 95% CL: 65,2 - 88,4
ATE US (oral)	5800 ma/kg body weight
ATE US (dermal)	20000 mg/kg body weight
kieselguhr, soda ash flux calcined (68	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation - Rat	 > 2.6 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
reaction mass of ethylbenzene, m-xyl	ene and p-xylene
LD50 oral rat	3523 mg/kg (EU Method B.1 (Acute Toxicity (Oral), rat, male)
LD50 dermal rabbit	12126 mg/kg body weight Animal: rabbit, Animal sex: male
LC50 Inhalation - Rat [ppm]	6350 ppm/4h (4 h, EU Method B.2 (Acute Toxicity (Inhalation)), rat, male, Inhalation, vapours)
ATE US (oral)	3523 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
ATE US (gases)	6350 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h
benzotriazol-2-yl)-5-tert-butyl-4-hydro hydroxyphenyl)propionyloxypoly(oxy	
LD50 oral rat	> 5000 mg/kg (OECD Guideline No. 401 (equivalent to Annex V), limit test, rat, male/female)
LD50 dermal rat	> 2000 mg/kg (OECD Guideline No. 402 (equivalent to Annex V), limit test, rat, male/female)
LC50 Inhalation - Rat	5800 mg/l (OECD Guideline 403, 14d, rat)
ATE US (vapors)	5800 mg/l/4h
ATE US (dust, mist)	5800 mg/l/4h
reaction mass of bis(1,2,2,6,6-pentam	ethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)
LD50 oral rat	3230 mg/kg (OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), rat, male/female)
LD50 dermal rat	> 3170 mg/kg (OECD Guideline 402 (Acute Dermal Toxicity), read-across,
ATE US (oral)	3230 mg/kg body weight
hexamethylene diisocyanate oligome	rs (28182-81-2)
LD50 oral rat	> 2500 mg/kg (OECD Test Guideline 423, rat, female)
LD50 dermal rat	> 2000 mg/kg (OECD Test Guideline 402, rat, male/female)
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	0.39 mg/l/4h

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carbon black (1333-86-4)	
LD50 oral rat	> 8000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 4.6 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Experimental value, Inhalation (dust))
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	: Not classified

reaction mass of ethylbenzene, m-xylene and p-xylene		
IARC group	2B - Possibly carcinogenic to humans	
carbon black (1333-86-4)		
IARC group	2B - Possibly carcinogenic to humans	
Reproductive toxicity	: Not classified	
STOT-single exposure	: Not classified	
n-butyl acetate (123-86-4)		
STOT-single exposure	May cause drowsiness or dizziness.	
acetone (67-64-1)		
STOT-single exposure	May cause drowsiness or dizziness.	
reaction mass of ethylbenzene, m-xylene and p-xylene		
STOT-single exposure	May cause respiratory irritation.	
hexamethylene diisocyanate oligomers (28182-81-2)		
	•	
STOT-single exposure	May cause respiratory irritation.	

STOT-repeated exposure

: Not classified

kieselguhr, soda ash flux calcined (6885	5-54-9)
NOAEL (oral,rat,90 days)	3737.9 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90- Day Oral Toxicity in Rodents)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
reaction mass of ethylbenzene, m-xylen	e and p-xylene
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)
NOAEL (oral,rat,90 days)	150 mg/kg bodyweight/day (OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), female)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.

SECTION 12: Ecological information	n
12.1. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
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)

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n-butyl acetate (123-86-4)	
NOEC (chronic)	23 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic crustacea	23 mg/l
acetone (67-64-1)	
LC50 - Fish [1]	5540 mg/l (EU Method C.1, 96 h, Salmo gairdneri, Static system, Fresh water, Experimental value, Nominal concentration)
LOEC (chronic)	> 79 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	≥ 79 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
reaction mass of ethylbenzene, m	-xylene and p-xylene
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
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri
reaction mass of α-3-(3-(2H-benzo benzotriazol-2-yl)-5-tert-butyl-4-hy	Duration: '56 d' triazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene) and α-3-(3-(2H- 'droxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-
reaction mass of α-3-(3-(2H-benzo	Duration: '56 d' triazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene) and α-3-(3-(2H-droxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-oxyethylene) 2.8 mg/l (96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value,
reaction mass of α-3-(3-(2H-benzc benzotriazol-2-yl)-5-tert-butyl-4-hy hydroxyphenyl)propionyloxypoly(Duration: '56 d' triazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene) and α-3-(3-(2H- droxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4- oxyethylene)
reaction mass of α-3-(3-(2H-benzo benzotriazol-2-yl)-5-tert-butyl-4-hy hydroxyphenyl)propionyloxypoly(LC50 - Fish [1]	Duration: '56 d' triazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene) and α-3-(3-(2H-droxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-oxyethylene) 2.8 mg/l (96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration) 4 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal
reaction mass of α-3-(3-(2H-benzo benzotriazol-2-yl)-5-tert-butyl-4-hy hydroxyphenyl)propionyloxypoly(LC50 - Fish [1] EC50 - Crustacea [1]	Duration: '56 d' triazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene) and α-3-(3-(2H-droxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-oxyethylene) 2.8 mg/l (96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration) 4 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration) > 100 mg/l (72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental
reaction mass of α-3-(3-(2H-benzo benzotriazol-2-yl)-5-tert-butyl-4-hy hydroxyphenyl)propionyloxypoly(LC50 - Fish [1] EC50 - Crustacea [1] ErC50 algae	Duration: '56 d' triazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene) and α-3-(3-(2H-droxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-oxyethylene) 2.8 mg/l (96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration) 4 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration) > 100 mg/l (72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental
reaction mass of α-3-(3-(2H-benzo benzotriazol-2-yl)-5-tert-butyl-4-hy hydroxyphenyl)propionyloxypoly(LC50 - Fish [1] EC50 - Crustacea [1] ErC50 algae carbon black (1333-86-4)	Duration: '56 d' triazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene) and α-3-(3-(2H-droxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-oxyethylene) 2.8 mg/l (96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration) 4 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration) > 100 mg/l (72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration) > 100 mg/l (0ECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh vater, Experimental value, Nominal concentration)

12.2. Persistence and degradability

n-butyl acetate (123-86-4)		
Persistence and degradability	Readily biodegradable in water.	
ThOD	2.21 g O₂/g substance	
BOD (% of ThOD)	0.46	
acetone (67-64-1)		
Persistence and degradability	Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.	
Biochemical oxygen demand (BOD)	1.43 g O₂/g substance	
Chemical oxygen demand (COD)	1.92 g O₂/g substance	
ThOD	2.2 g O₂/g substance	
BOD (% of ThOD)	0.872 (20 day(s), Literature study)	
kieselguhr, soda ash flux calcined (68855-54-9)		
Persistence and degradability	Biodegradability: not applicable.	
Chemical oxygen demand (COD)	Not applicable	
ThOD	Not applicable	
BOD (% of ThOD)	Not applicable	

carbon black (1333-86-4)	
Persistence and degradability	Biodegradability in soil: not applicable. Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

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n-butyl acetate (123-86-4)			
BCF - Fish [1]	15.3 (Calculated value)		
Partition coefficient n-octanol/water (Log Pow)	2.3 (Test data, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		
acetone (67-64-1)			
BCF - Fish [1]	0.69 (Pisces)		
BCF - Other aquatic organisms [1]	3 (BCFWIN, Calculated value)		
Partition coefficient n-octanol/water (Log Pow)	-0.24 (Test data)		
Bioaccumulative potential	Not bioaccumulative.		
kieselguhr, soda ash flux calcined (68855-54-	9)		
Bioaccumulative potential	No test data of component(s) available.		
PCE Eich [1]	2659 2420 (502 h Operhypopula mylice Flow through eveter Freshweter Ever		
hydroxyphenyl)propionyloxypoly(oxyethylen	yl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4- e)		
BCF - Fish [1]	2658 – 3430 (502 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental		
BCF - Fish [1] Partition coefficient n-octanol/water (Log Pow)	value)		
Partition coefficient n-octanol/water (Log Pow)			
Partition coefficient n-octanol/water (Log Pow) carbon black (1333-86-4)	value) 4.6 (Experimental value, Equivalent or similar to OECD 117, 25 °C)		
Partition coefficient n-octanol/water (Log Pow)	value)		
Partition coefficient n-octanol/water (Log Pow) carbon black (1333-86-4) Bioaccumulative potential	value) 4.6 (Experimental value, Equivalent or similar to OECD 117, 25 °C)		
Partition coefficient n-octanol/water (Log Pow) carbon black (1333-86-4) Bioaccumulative potential	value) 4.6 (Experimental value, Equivalent or similar to OECD 117, 25 °C)		
Partition coefficient n-octanol/water (Log Pow) carbon black (1333-86-4) Bioaccumulative potential 2.4. Mobility in soil	value) 4.6 (Experimental value, Equivalent or similar to OECD 117, 25 °C)		
Partition coefficient n-octanol/water (Log Pow) carbon black (1333-86-4) Bioaccumulative potential 2.4. Mobility in soil n-butyl acetate (123-86-4)	value) 4.6 (Experimental value, Equivalent or similar to OECD 117, 25 °C) Not bioaccumulative.		
Partition coefficient n-octanol/water (Log Pow) carbon black (1333-86-4) Bioaccumulative potential 2.4. Mobility in soil n-butyl acetate (123-86-4) Surface tension Organic Carbon Normalized Adsorption	value) 4.6 (Experimental value, Equivalent or similar to OECD 117, 25 °C) Not bioaccumulative. 0.0163 N/m (20 °C)		
Partition coefficient n-octanol/water (Log Pow) carbon black (1333-86-4) Bioaccumulative potential 2.4. Mobility in soil n-butyl acetate (123-86-4) Surface tension Organic Carbon Normalized Adsorption Coefficient (Log Koc)	value) 4.6 (Experimental value, Equivalent or similar to OECD 117, 25 °C) Not bioaccumulative. 0.0163 N/m (20 °C) 1.268 – 1.844 (log Koc, SRC PCKOCWIN v2.0, QSAR)		
Partition coefficient n-octanol/water (Log Pow) carbon black (1333-86-4) Bioaccumulative potential 2.4. Mobility in soil n-butyl acetate (123-86-4) Surface tension Organic Carbon Normalized Adsorption Coefficient (Log Koc) Ecology - soil	value) 4.6 (Experimental value, Equivalent or similar to OECD 117, 25 °C) Not bioaccumulative. 0.0163 N/m (20 °C) 1.268 – 1.844 (log Koc, SRC PCKOCWIN v2.0, QSAR)		

carbon black (1333-86-4)	
Surface tension	Not applicable (solid)
Ecology - soil	No (test)data on mobility of the substance available. Not toxic to plants. Not toxic to animals.

12.5. Other adverse effects

SECTION 13: Disposal consideration	ons
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
SECTION 14: Transport information	1
Department of Transportation (DOT) In accordance with DOT	
Transport document description (DOT) UN-No.(DOT) Proper Shipping Name (DOT) Class (DOT)	 : UN1950 Aerosols, 2.1 : UN1950 : Aerosols : 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115

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Hazard labels (DOT)	: 2.1 - Flammable gas
	FLAMMABLE GAS
	W
DOT Packaging Non Bulk (49 CFR 173.xxx)	: None
DOT Packaging Bulk (49 CFR 173.xxx)	: None
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 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
Emergency Response Guide (ERG) Number	: 126
Other information	: No supplementary information available.
Transportation of Dangerous Goods	
Transport document description (TDG)	: UN1950 AEROSOLS (flammable), 2.1
UN-No. (TDG)	: UN1950
Proper Shipping Name (TDG)	: AEROSOLS
TDG Primary Hazard Classes	: 2.1 - Class 2.1 - Flammable Gas
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	: 1L
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	: 75 L
Transport by sea	
Transport document description (IMDG)	: UN 1950 AEROSOLS, 2.1
UN-No. (IMDG)	: 1950
Proper Shipping Name (IMDG)	: AEROSOLS
Class (IMDG)	: 2 - Gases
Air transport	
Transport document description (IATA)	: UN 1950 Aerosols, flammable, 2.1
UN-No. (IATA)	: 1950
Proper Shipping Name (IATA)	: Aerosols, flammable
Class (IATA)	: 2 - Gases
SECTION 15: Regulatory information	

SECHC)N 15: Re	gulatory i	nformation

15.1. US Federal regulations

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This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

n-butyl acetate (123-86-4)			
Listed on the United States TSCA (Toxic Subs	,	/	
CERCLA RQ	5000 lb		
acetone (67-64-1)			
Listed on the United States TSCA (Toxic Subs	,	<u>/</u>	
CERCLA RQ	5000 lb		
kieselguhr, soda ash flux calcined (68855-5	54-9)		
Listed on the United States TSCA (Toxic Subs	stances Control Act) invento	<u>/</u>	
reaction mass of ethylbenzene, m-xylene a	nd p-xylene		
Listed on the United States TSCA (Toxic Subs	stances Control Act) invento	/	
reaction mass of α-3-(3-(2H-benzotriazol-2- benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphe hydroxyphenyl)propionyloxypoly(oxyethyl	enyl)propionyl-ω-3-(3-(2H-	nenyl)propionyl-w-hydroxypoly(oxyethylene) and α -3-(3-(2H- nenzotriazol-2-yl)-5-tert-butyl-4-	
Listed on the United States TSCA (Toxic Subs	stances Control Act) invento	/	
EPA TSCA Regulatory Flag	name but is considered regardless of the amou PMN - PMN - indicates	olymeric substance containing no free-radical initiator in its Inveni to cover the designated polymer made with any free-radical initiat nt used. a commenced PMN substance. Ibstance exempt from reporting under the Chemical Data Reportir	tor
reaction mass of bis(1.2.2.6.6-pentamethyl-	-4-piperidyl) sebacate and	nethyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-9	1-5)
Listed on the United States TSCA (Toxic Subs			
hexamethylene diisocyanate oligomers (28	(182-81-2)		
Listed on the United States TSCA (Toxic Subs		/	_
EPA TSCA Regulatory Flag		bstance exempt from reporting under the Chemical Data Reportin	ng
carbon black (1333-86-4)			
Listed on the United States TSCA (Toxic Subs	stances Control Act) invento	/	
5.2. International regulations			
ANADA			
n-butyl acetate (123-86-4)			
Listed on the Canadian DSL (Domestic Substa	ances List)		
acetone (67-64-1)			
Listed on the Canadian DSL (Domestic Substa	ances List)		
kieselguhr, soda ash flux calcined (68855-5	54-9)		
Listed on the Canadian DSL (Domestic Subst	ances List)		
reaction mass of ethylbenzene, m-xylene a	nd p-xylene		
Listed on the Canadian DSL (Domestic Substa	ances List)		
reaction mass of α-3-(3-(2H-benzotriazol-2- benzotriazol-2-yl)-5-tert-butyl-4-hydroxyph hydroxyphenyl)propionyloxypoly(oxyethyl	enyl)propionyl-ω-3-(3-(2H-	nenyl)propionyl-ω-hydroxypoly(oxyethylene) and α-3-(3-(2H- senzotriazol-2-yl)-5-tert-butyl-4-	
Listed on the Canadian DSL (Domestic Substa	ances List)		
reaction mass of bis(1,2,2,6,6-pentamethyl-	-4-piperidyl) sebacate and	nethyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-9	1-5)
Listed on the Canadian DSL (Domestic Subst			
hexamethylene diisocyanate oligomers (28	182-81-2)		
Listed on the Canadian DSL (Domestic Subst	•		
carbon black (1333-86-4)	,		
Listed on the Canadian DSL (Domestic Subst	ances List)		
U-Regulations lo additional information available			
7/01/2021	EN (English US)	SDS ID: RLOGAL-R-US-SDS	11/

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National regulations

carbon black (1333-86-4)

15.3. US State regulations

WARNING:

This product can expose you to carbon black, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Component	Carcinogenicity	Developmental toxicity	Reproductive toxicity male	Reproductive toxicity female	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
carbon black(1333-86- 4)	X					

Component	State or local regulations
kieselguhr, soda ash flux calcined(68855-54-9)	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
acetone(67-64-1)	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
carbon black(1333-86-4)	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 Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

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Revision date	: 06/21/2018
NFPA health hazard	: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
NFPA fire hazard	: 4 - Materials that rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and burn readily.
NFPA reactivity	: 3 - Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction but that require a strong initiating source or must be heated under confinement before initiation.

Indication of changes:

Section	Changed item	Change	Comments
	Supersedes	Added	
	Revision date	Modified	

SDS US GHS (GHS HazCom2012)

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