

SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

 Product form : Mixture
 Product name : V-2®

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

Use of the substance/mixture : Multi-purpose Thread Sealant

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet
Manufacturer

 Jet-Lube
 930 Whitmore Drive
 75087 Rockwall, Texas - USA
 T 1.972.771.1000
Regulatory@whitmores.com - www.jetlube.com
Distributor

 Whitmore
 City Park, Watchmead
 Welwyn Garden City, Hertfordshire , AL7 1LT - United Kingdom
 T +44 1707 379870
Regulatory@whitmores.com - www.whitmores.com
1.4. Emergency telephone number

 Emergency number : For Chemical Emergency Call CHEMTREC 24hr/day 7days/week
 Within USA and Canada: 1.800.424.9300
 Outside USA and Canada: +1.703.527.3887
 (collect calls accepted)

SECTION 2: Hazards identification
2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Precautionary statements (CLP) : P280 - Wear eye protection, protective gloves.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients
3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Castor Oil	(CAS-No.) 8001-79-4 (EC-No.) 232-293-8	20 - 30	Not classified
Diacetone alcohol	(CAS-No.) 123-42-2 (EC-No.) 204-626-7 (EC Index-No.) 603-016-00-1	5 - 10	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Eye Irrit. 2, H319
poly(ethylenetetrafluoride)	(CAS-No.) 9002-84-0	1 - 5	Not classified
titanium dioxide	(CAS-No.) 13463-67-7 (EC-No.) 236-675-5	1 - 5	Aquatic Chronic 3, H412

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Diacetone alcohol	(CAS-No.) 123-42-2 (EC-No.) 204-626-7 (EC Index-No.) 603-016-00-1	(10 ≤C ≤ 100) Eye Irrit. 2, H319

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Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

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.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

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 : Exercise caution. Spill area may be slippery.

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 : Take up liquid spill into absorbent material.

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. Wear personal protective equipment.

Hygiene measures : 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 : Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Castor Oil (8001-79-4)

Belgium - Occupational Exposure Limits

Limit value [mg/m ³]	10 mg/m ³
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Diacetone alcohol (123-42-2)

Austria - Occupational Exposure Limits

Local name	4-Hydroxy-4-methylpentan-2-on
MAK [mg/m ³]	240 mg/m ³
MAK [ppm]	50 ppm

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Remark (AT)	H
Regulatory reference	BGBI. II Nr. 186/2015
Belgium - Occupational Exposure Limits	
Local name	4-Hydroxy-4-méthyl-2-pentanone # 4-Hydroxy-4-methyl-2-pentanon
Limit value [mg/m ³]	241 mg/m ³
Limit value [ppm]	50 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 02/09/2018
Croatia - Occupational Exposure Limits	
Local name	4-Hidroksi-4-metil-pentan-2-on (diaceton-alkohol)
GVI (granična vrijednost izloženosti) (mg/m ³)	241 mg/m ³
GVI (granična vrijednost izloženosti) (ppm)	50 ppm
KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m ³)	362 mg/m ³
KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	75 ppm
Regulatory reference	Pravilnik o izmjenama i dopunama Pravilnika o graničnim vrijednostima izloženosti opasnim tvarima pri radu i o biološkim graničnim vrijednostima (NN 91/2018)
Czech Republic - Occupational Exposure Limits	
Local name	Diacetonalkohol
Expoziční limity (PEL) (mg/m ³)	200 mg/m ³
Expoziční limity (PEL) (ppm)	40 ppm
Expoziční limity (NPK-P) (mg/m ³)	300 mg/m ³
Expoziční limity (NPK-P) (ppm)	60 ppm
Remark (CZ)	I (dráždí sliznice (oči, dýchací cesty) resp. kůži)
Regulatory reference	Nařízení vlády č. 361/2007 Sb. (zpracovány změny č. 246/2018 Sb.)
Denmark - Occupational Exposure Limits	
Local name	Diacetonealkohol (4-Hydroxy-4-methyl-2-pentanon)
Grænsevædi (8 timer) (mg/m ³)	240 mg/m ³
Grænsevædi (8 timer) (ppm)	50 ppm
Regulatory reference	BEK nr 655 af 31/05/2018
Estonia - Occupational Exposure Limits	
Local name	4-hüdroksü-4-metüül-2-pentaan (diatsetoonalkohol)
OEL TWA (mg/m ³)	120 mg/m ³
OEL TWA (ppm)	25 ppm
OEL STEL (mg/m ³)	240 mg/m ³
OEL STEL (ppm)	50 ppm
Regulatory reference	Vabariigi Valitsuse 18. septembri 2001. a määruse nr 293 (RT I, 30.11.2011, 5)
Finland - Occupational Exposure Limits	
Local name	Diasetonialkoholi
HTP-arvo (8h) (mg/m ³)	240 mg/m ³
HTP-arvo (8h) (ppm)	50 ppm
HTP-arvo (15 min)	360 mg/m ³
HTP-arvo (15 min) (ppm)	75 ppm
Regulatory reference	HTP-ARVOT 2018 (Sosiaali- ja terveysministeriö)
France - Occupational Exposure Limits	
Local name	Diacétone-alcool

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VME [mg/m ³]	240 mg/m ³
VME [ppm]	50 ppm
Note (FR)	Valeurs recommandées/admises
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)
Germany - Occupational Exposure Limits (TRGS 900)	
TRGS 900 Local name	4-Hydroxy-4-methylpentan-2-on
Occupational exposure limit value (mg/m ³)	96 mg/m ³
Occupational exposure limit value (ppm)	20 ppm
Peak exposure limitation factor	2(l)
TRGS 900 Remark	DFG;H
TRGS 900 Regulatory reference	TRGS900
Greece - Occupational Exposure Limits	
Local name	Διακετονική αλκοόλη
OEL TWA (mg/m ³)	240 mg/m ³
OEL TWA (ppm)	50 ppm
OEL STEL (mg/m ³)	360 mg/m ³
OEL STEL (ppm)	75 ppm
Regulatory reference	Π.Δ. 90/1999
Ireland - Occupational Exposure Limits	
Local name	Diacetone alcohol
OEL (8 hours ref) (mg/m ³)	240 mg/m ³
OEL (8 hours ref) (ppm)	50 ppm
Regulatory reference	Code of Practice for the Chemical Agents Regulations 2018
Lithuania - Occupational Exposure Limits	
Local name	Diacetono alkoholis
IPRV (mg/m ³)	120 mg/m ³
IPRV (ppm)	25 ppm
TPRV (mg/m ³)	240 mg/m ³
TPRV (ppm)	50 ppm
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Poland - Occupational Exposure Limits	
Local name	4-Hydroksy-4-metylopentan-2-on (alkohol diacetonowy)
NDS (mg/m ³)	240 mg/m ³
Regulatory reference	Dz. U. 2018 poz. 1286
Portugal - Occupational Exposure Limits	
Local name	Álcool diacetónico (4-hidroxi-4-metil-2-pentanona)
OEL TWA (ppm)	50 ppm
Regulatory reference	Norma Portuguesa NP 1796:2014
Romania - Occupational Exposure Limits	
Local name	4-Hidroxi-4metil 2 pentanonă/ Diaceton-alcool
OEL TWA (mg/m ³)	150 mg/m ³
OEL TWA (ppm)	32 ppm
OEL STEL (mg/m ³)	250 mg/m ³
OEL STEL (ppm)	53 ppm
Regulatory reference	Hotărârea nr. 584/2018

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Slovenia - Occupational Exposure Limits	
Local name	4-hidroksi-4-metilpentan-2-on (diacetonalkohol)
OEL TWA (mg/m ³)	96 mg/m ³
OEL TWA (ppm)	20 ppm
OEL STEL (mg/m ³)	192 mg/m ³
OEL STEL (ppm)	40 ppm
Remark (SI)	K (Lastnost lažjega prehajanja snovi v organizem skozi kožo)
Regulatory reference	Uradni list RS, št. 78/2018 z dne 4.12.2018
Spain - Occupational Exposure Limits	
Local name	Diacetona alcohol
VLA-ED (mg/m ³)	241 mg/m ³
VLA-ED (ppm)	50 ppm
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2019. INSHT
Sweden - Occupational Exposure Limits	
Local name	4-Hydroxi-4-metyl-2-pentanon (Diacetonalkohol)
nivågränsvärde (NVG) (mg/m ³)	120 mg/m ³
nivågränsvärde (NVG) (ppm)	25 ppm
kortidsvärde (KTV) (mg/m ³)	240 mg/m ³
kortidsvärde (KTV) (ppm)	50 ppm
Anmärkning (SE)	V (Vägledande kortidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas)
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom - Occupational Exposure Limits	
Local name	4-Hydroxy-4-methylpentan-2-one
WEL TWA (mg/m ³)	241 mg/m ³
WEL TWA (ppm)	50 ppm
WEL STEL (mg/m ³)	362 mg/m ³
WEL STEL [ppm]	75 ppm
Regulatory reference	EH40/2005 (Third edition, 2018). HSE
Iceland - Occupational Exposure Limits	
Local name	4-Hýdroxý-4-metýl-2-pentanón (díasetónalkóhól)
OEL (8 hours ref) (mg/m ³)	240 mg/m ³
OEL (8 hours ref) (ppm)	50 ppm
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)
Norway - Occupational Exposure Limits	
Local name	4-hydroksy-4-metyl-2-pentanon (Diacetonalkohol)
Grenseverdier (AN) (mg/m ³)	120 mg/m ³
Grenseverdier (AN) (ppm)	25 ppm
Regulatory reference	FOR-2018-08-21-1255
Switzerland - Occupational Exposure Limits	
Local name	4-Hydroxy-4-méthylpentan-2-one / 4-Hydroxy-4-methylpentan-2-on [Diacetonalkohol]
MAK (mg/m ³)	96 mg/m ³
MAK (ppm)	20 ppm
KZGW (mg/m ³)	192 mg/m ³
KZGW (ppm)	40 ppm

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Critical toxicity	VRS, Yeux / OAW, Auge
Notation	R / H
Remark	NIOSH
Regulatory reference	www.suva.ch, 01.07.2019

USA - ACGIH - Occupational Exposure Limits

Local name	Diacetone alcohol
ACGIH TWA (ppm)	50 ppm
Remark (ACGIH)	TLV® Basis: URT & eye irr
Regulatory reference	ACGIH 2019

poly(ethylenetetrafluoride) (9002-84-0)

Netherlands - Occupational Exposure Limits

Grenswaarde TGG 15MIN (mg/m ³)	1 mg/m ³ (als F)
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titanium dioxide (13463-67-7)

Austria - Occupational Exposure Limits

Local name	Titandioxid (Alveolarstaub)
MAK [mg/m ³]	5 mg/m ³
MAK Short time value [mg/m ³]	10 mg/m ³
Regulatory reference	BGBI. II Nr. 186/2015

Belgium - Occupational Exposure Limits

Local name	Titane (dioxyde de) # Titaandioxide
Limit value [mg/m ³]	10 mg/m ³
Regulatory reference	Koninklijk besluit/Arrêté royal 02/09/2018

Bulgaria - Occupational Exposure Limits

Local name	Титанов диоксид
OEL TWA (mg/m ³)	10 mg/m ³ (респирабилен прах)
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр.73 от 4 септември 2018 г.)

Croatia - Occupational Exposure Limits

Local name	Titanov dioksid
GVI (granična vrijednost izloženosti) (mg/m ³)	10 mg/m ³ U (ukupna prašina) 4 mg/m ³ R (respirabilna prašina)
Regulatory reference	Pravilnik o izmjenama i dopunama Pravilnika o graničnim vrijednostima izloženosti opasnim tvarima pri radu i o biološkim graničnim vrijednostima (NN 91/2018)

Denmark - Occupational Exposure Limits

Local name	Titandioxid
Grænsevædi (8 timer) (mg/m ³)	6 mg/m ³ beregnet som Ti
Regulatory reference	BEK nr 655 af 31/05/2018

Estonia - Occupational Exposure Limits

Local name	Titaanoksiid
OEL TWA (mg/m ³)	5 mg/m ³
Regulatory reference	Vabariigi Valitsuse 18. septembri 2001. a määruse nr 293 (RT I, 30.11.2011, 5)

France - Occupational Exposure Limits

Local name	Titane (dioxyde de), en Ti
VME [mg/m ³]	10 mg/m ³

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Note (FR)	Valeurs recommandées/admises
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)
Greece - Occupational Exposure Limits	
Local name	Τιτανίου διοξειδίο
OEL TWA (mg/m ³)	10 mg/m ³ εισπν. 5 mg/m ³ σναπν.
Regulatory reference	Π.Δ. 90/1999
Ireland - Occupational Exposure Limits	
Local name	Titanium dioxide
OEL (8 hours ref) (mg/m ³)	10 mg/m ³ total inhalable dust 4 mg/m ³ respirable dust
Regulatory reference	Code of Practice for the Chemical Agents Regulations 2018
Latvia - Occupational Exposure Limits	
Local name	Titāna dioksīds
OEL TWA (mg/m ³)	10 mg/m ³
Regulatory reference	Ministru kabineta 2007.gada 15.maija noteikumiem Nr.325 (Grozījumi Ministru kabineta 2011.gada 1.februārī noteikumiem Nr.92)
Lithuania - Occupational Exposure Limits	
Local name	Titano dioksidas
IPRV (mg/m ³)	5 mg/m ³
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Poland - Occupational Exposure Limits	
Local name	Ditlenek tytanu
NDS (mg/m ³)	10 mg/m ³ frakcja wdychalna
Remark (PL)	Frakcja wdychalna – frakcja aerozolu wnikaćca przez nos i usta, która po zdeponowaniu w drogach oddechowych stwarza zagrożenie dla zdrowia. Obowiązuje jednocześnie oznaczanie stężeń frakcji respirabilnej krzemionki krystalicznej.
Regulatory reference	Dz. U. 2018 poz. 1286
Portugal - Occupational Exposure Limits	
Local name	Dióxido de titânio
OEL TWA (mg/m ³)	10 mg/m ³
Regulatory reference	Norma Portuguesa NP 1796:2014
Romania - Occupational Exposure Limits	
Local name	Dioxid de titan
OEL TWA (mg/m ³)	10 mg/m ³
OEL STEL (mg/m ³)	15 mg/m ³
Regulatory reference	Hotărârea nr. 584/2018
Slovakia - Occupational Exposure Limits	
Local name	Oxid titaničitý
NPHV (priemerná) (mg/m ³)	5 mg/m ³
Regulatory reference	Nariadenie vlády č. 33/2018 Z.z.
Spain - Occupational Exposure Limits	
Local name	Dióxido de titanio
VLA-ED (mg/m ³)	10 mg/m ³
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2019. INSHT
Sweden - Occupational Exposure Limits	
Local name	Titandioxid

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nivågränsvärde (NVG) (mg/m ³)	5 mg/m ³ totaldamm
Anmärkning (SE)	3 (Med totaldamm menas de partiklar (aerosoler) som fastnar på ett filter i den provtagare som beskrivs i Metodserien, Provtagning av totaldamm och respirabelt damm, Metod nr 1010, Arbetarskyddsstyrelsen, numera Arbetsmiljöverket. Filterdiametern är normalt 37 mm, men kan även vara 25 mm. Trots sitt namn provtas inte den totala mängden luftburna partiklar med denna metod)
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom - Occupational Exposure Limits	
Local name	Titanium dioxide
WEL TWA (mg/m ³)	4 mg/m ³ respirable 10 mg/m ³ total inhalable
Regulatory reference	EH40/2005 (Third edition, 2018). HSE
Iceland - Occupational Exposure Limits	
Local name	Títandíoxíð, sem Ti
OEL (8 hours ref) (mg/m ³)	6 mg/m ³
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)
Norway - Occupational Exposure Limits	
Local name	Titandioksid
Grenseverdier (AN) (mg/m ³)	5 mg/m ³
Regulatory reference	FOR-2018-08-21-1255
Switzerland - Occupational Exposure Limits	
Local name	Dioxyde de titane / Titandioxid
MAK (mg/m ³)	3 mg/m ³ (a) / (a)
Critical toxicity	VRI / UAW
Notation	SS _C / SS _C
Remark	NIOSH
Regulatory reference	www.suva.ch, 01.07.2019
USA - ACGIH - Occupational Exposure Limits	
Local name	Titanium dioxide
ACGIH TWA (mg/m ³)	10 mg/m ³
Remark (ACGIH)	TLV® Basis: LRT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2019

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Neoprene or nitrile rubber gloves

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Paste.
Colour	: Grey.
Odour	: Oil-like odour.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 113 °C Cleveland Open Cup
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.38
Solubility	: Insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: > 25 mm ² /s @ 40 °C
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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

None under recommended storage and handling conditions (see section 7).

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

Diacetone alcohol (123-42-2)	
LD50 oral rat	3002 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 2738 - 3290
LD50 oral	4000 mg/kg
LD50 dermal rat	> 1875 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

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titanium dioxide (13463-67-7)	
LD50 oral rat	> 5000 mg/kg bodyweight 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	> 6.82 mg/l (Other, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

poly(ethylenetetrafluoride) (9002-84-0)	
IARC group	3 - Not classifiable

titanium dioxide (13463-67-7)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

Diacetone alcohol (123-42-2)	
LOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEL (oral, rat, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEC (inhalation, rat, vapour, 90 days)	≥ 4.106 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

Aspiration hazard	: Not classified
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Viscosity, kinematic	> 25 mm ² /s @ 40 °C

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified
Not rapidly degradable	

Castor Oil (8001-79-4)	
LC50 fish 1	> 1000 ppm (96 h, Pisces)

Diacetone alcohol (123-42-2)	
LC50 fish 1	> 100 mg/l Test organisms (species): Oryzias latipes
EC50 Daphnia 1	> 1000 mg/l Test organisms (species): Daphnia magna

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EC50 72h algae (1)	> 1000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 (algae)	> 1000 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
LOEC (chronic)	> 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

titanium dioxide (13463-67-7)

LC50 fish 1	155 mg/l Test organisms (species): other:Japanese Medaka
EC50 Daphnia 1	19.3 mg/l Test organisms (species): Daphnia magna
EC50 Daphnia 2	27.8 mg/l Test organisms (species): Daphnia magna
EC50 72h algae (1)	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
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

Castor Oil (8001-79-4)

Persistence and degradability	Readily biodegradable in water.
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Diacetone alcohol (123-42-2)

Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.07 g O ₂ /g substance
Chemical oxygen demand (COD)	2.11 g O ₂ /g substance
ThOD	2.21 g O ₂ /g substance

titanium dioxide (13463-67-7)

Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

Castor Oil (8001-79-4)

Bioaccumulative potential	No bioaccumulation data available.
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Diacetone alcohol (123-42-2)

Partition coefficient n-octanol/water (Log Pow)	1.9 (Read-across, Equivalent or similar to OECD 117)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

poly(ethylenetetrafluoride) (9002-84-0)

Bioaccumulative potential	No test data available.
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titanium dioxide (13463-67-7)

Bioaccumulative potential	Not bioaccumulative.
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12.4. Mobility in soil

Castor Oil (8001-79-4)

Surface tension	0.039 N/m
Ecology - soil	No (test)data on mobility of the substance available.

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Diacetone alcohol (123-42-2)	
Ecology - soil	Low potential for adsorption in soil.

poly(ethylenetetrafluoride) (9002-84-0)	
Ecology - soil	No (test)data on mobility of the substance available.

titanium dioxide (13463-67-7)	
Ecology - soil	Low potential for mobility in soil.

12.5. Results of PBT and vPvB assessment

Component	
poly(ethylenetetrafluoride) (9002-84-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Diacetone alcohol (123-42-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
titanium dioxide (13463-67-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

No supplementary information available

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. EU-Regulations**

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations**Germany**

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : Castor Oil is listed

SZW-lijst van mutagene stoffen : Castor Oil is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information**Abbreviations and acronyms:**

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration

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OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

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

Not classified

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H312	Harmful in contact with skin.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.