

according to Article 31 of Regulation No 1907/2006/EC (REACH)

Printing date: 09.11.2017

Revision date: 09.11.2017

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

- · 1.1 Product identifier
- · Trade name: DERTOLINE PLS
- Product number: 007155
- Substance name: EC name: Resin acids and Rosin acids, esters with pentaerythritol
- · CAS number: 8050-26-8
- · EC number: 232-479-9
- · REACH Registration number: 01-2119486685-21-0005
- 1.2 Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses : Manufacture and distribution of the substance, adhesives, coatings, synthesis intermediate,

cleaning agents, rubbers, polymers, road and construction products, binders, lubricants, laboratory, agrochemicals, cosmetics.

 \cdot 1.3 Details of the supplier of the safety data sheet

 Manufacturer/Supplier: LES DERIVES RESINIQUES ET TERPENIQUES (DRT) 30 rue Gambetta BP 206 F-40105 DAX CEDEX FRANCE Tel: 33-(0)558566200 Fax: 33-(0)558566222 Email: fds@drt.fr

· 1.4 Emergency telephone number

CHEMTREC (24/24 – 7/7) International: +1 703 527 3887 From United Kingdom (London): 0870 820 0418 Other countries: see section 16

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008: The substance is not classified according to Regulation (EC) No 1272/2008.
- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008: Void
- · Hazard pictograms Void
- · Signal word: Void
- · Hazard statements: Void

· Information concerning to particular hazards to man and environment:

Fine particles and powder may cause skin irritation by mechanical abrasion. However, based on available data, the classification criteria are not met.

Fine particles and powder may cause eye irritation by mechanical abrasion. However, based on available data, the classification criteria are not met.

Inhalation (dust or vapours/fumes generated by heated products) may cause respiratory irritation with throat discomfort, coughing or breathing difficulty.

Hot molten product: Burns may cause irreversible eye injury and blindness. Causes skin burns

This product may be stored or transported at temperatures up to 190°C. Accidental splashing may cause severe burn.

· 2.3 Other hazards

Resin dust may ignite on contact with electrostatic discharge or exposure to flame or other sources of ignition. Hot molten product: may burn if ignited.

- · Results of PBT and vPvB assessment
- · PBT:

According to Annex XIII of REACH Regulation, the substance is not considered to be Persistent, Bioaccumulative and Toxic.

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· vPvB:

According to Annex XIII of REACH Regulation, the substance is not considered to be very Persistent and very Bioaccumulative.

Additional information for PBT and vPvB assessment

Biodegradability screening studies on structurally related rosin esters have failed to demonstrate ready biodegradability for this product category. However log Kow of this substance is very high and the calculated BCF (bioconcentration factor) is below the B criteria of 2000 L/Kg.

SECTION 3: Composition/information on ingredients

- \cdot 3.1 Chemical characterization: Substance UVCB
- · Identification number(s)
- CAS number: 8050-26-8
- EC number: 232-479-9
- \cdot **Description:** IUPAC name: Pentaerythritol ester of rosin

SECTION 4: First aid measures

\cdot 4.1 Description of first aid measures

· After inhalation:

Supply fresh air. If symptoms are experienced, get medical attention.

In case of unconsciousness place patient stably in side position for transportation.

- After skin contact:
- Product at ambient temperature:

Immediately rinse with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritations occurs.

Hot product:

Immediately immerse or flush the burn area with large amounts of cold water (at least 15 minutes). Do not remove solidified material from burned skin as the damaged skin can be easily torn. Transfer immediately to hospital.

After eye contact:

Product at ambient temperature:

Immediately rinse with water. Remove contact lenses if present and easy to do. Hold eyelids apart and flush eyes with plenty of cool low-pressure water for several minutes. Il symptoms persist, consult a doctor.

Hot product:

Do not open eyelids if covered with resins. Immediately flush eyes with large amounts of water for at least 15 minutes. Do not remove solidified material from burned eye as the damaged tissues can be easily torn. Transfer immediately to hospital.

· After swallowing:

Do not induce vomiting. If the person is conscious, immediately rinse out mouth with water.

- No adverse health effects are expected from accidental ingestion of small amounts of this product. In case of lasting symptoms, consult a doctor.

- For ingestion of large amounts: do not induce vomiting and get medical attention.
- 4.2 Most important symptoms and effects, both acute and delayed No data available.
- · 4.3 Indication of any immediate medical attention and special treatment needed
- For doctors: Mineral oil may be used to loosen and soften the material.

SECTION 5: Firefighting measures

• 5.1 Suitable extinguishing agents

Carbon dioxyde (CO_2), foam, fire-extinguishing powder, water spray.

Fight large fires with water spray or foam.

• 5.2 Special hazards arising from the substance or mixture In case of fire, may release irritant and toxic fumes.

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· 5.3 Advice for firefighters

· Protective equipment:

Firefighters should wear appropriate protective equipment and self-contained breathing apparatus.

SECTION 6: Accidental release measures

• 6.1 Personal precautions, protective equipment and emergency procedures Wear appropriate personal protective equipment. Keep unprotected persons away. Provide adequate ventilation. Avoid dust formation.

• **6.2 Environmental precautions** Do not allow product to reach soil, waterways, drains and sewers.

Inform the relevant authorities if the product has caused environmental pollution (soil, waterways, drains or sewers). • 6.3 Methods and material for containment and cleaning up

Pick up mechanically.

Avoid as much as you can the formation of dust.

Collect and seal in an appropriate container properly labelled for disposal.

6.4 Reference to other sections
 See section 8 for information on personal protection equipment.
 See section 13 for disposal information.

SECTION 7: Handling and storage

 7.1 Precautions for safe handling Wear appropriate personal protective equipment. Provide adequate ventilation in the workplace. Avoid as much as you can the formation of dust. Provide suction extractors if dust is formed. · Information about fire - and explosion protection: Protect against electrostatic charges. Use only non-sparking tools. Protect from heat. Keep ignition sources away. Do not use compressed air and do not blow to remove resin dusts when cleaning the working cloths or equipments. Local suctions extractor can be used (if an appropriate maintenance is carried out). · 7.2 Conditions for safe storage Store if possible under cover in a dry, cool and well-ventilated area. Provide storage areas with suitable ventilation to eliminate dust. Avoid dust formation close to sources of ignition. Protect from heat and direct sunlight. All equipments including ventilation systems must be equipotential and earthed. · Further information about storage conditions:

- · Maximum storage temperature: 190°C
- · 7.3 Specific end use(s) None

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Components with limit values that require monitoring at the workplace:

Inhalable dust: Austria: limit value - 8 hours = 10 mg/m³ Austria: limit value - short term = 20 mg/m³ Belgium: limit value - 8 hours = 10 mg/m³ Denmark: limit value - 8 hours = 10 mg/m³ Denmark: limit value - short term = 20 mg/m³ France: limit value - 8 hours = 10 mg/m³ (restrictive statutory limit value) Germany (AGS): limit value - 8 hours = 10 mg/m³

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Germany (AGS): limit value - short term = 20 mg/m ³ Germany (DFG): limit value - 8 hours = 4 mg/m ³ Hungary: limit value - 8 hours = 10 mg/m ³ Ireland: limit value - 8 hours = 10 mg/m ³ Spain: limit value - 8 hours = 10 mg/m ³ Sweden: limit value - 8 hours = 10 mg/m ³ Switzerland: limit value - 8 hours = 10 mg/m ³	(Contd. of page 3)
Respirable dust: Austria: limit value - 8 hours = 5 mg/m ³ Austria: limit value - short term = 10 mg/m ³ Belgium: limit value - 8 hours = 3 mg/m ³ France: limit value - 8 hours = 5 mg/m ³ (restrictive statutory limit value) Germany (AGS): limit value - 8 hours = 3 mg/m ³ Germany (AGS): limit value - short term = 6 mg/m ³ Germany (DFG): limit value - 8 hours = 1.5 mg/m ³ Hungary: limit value - 8 hours = 6 mg/m ³ Ireland: limit value - 8 hours = 4 mg/m ³ Spain: limit value - 8 hours = 5 mg/m ³ Sweden: limit value - 8 hours = 5 mg/m ³	
·DNELs	
 DNEL (Derived No-Effect Level): Workers - Long-term exposure Systemic effects - dermal : 6.3 mg/kg bw/d Systemic effects - inhalation : 44.6 mg/m³ 	
 DNEL (Derived No-Effect Level): General population - Long-term exposure Systemic effects - dermal : 3.8 mg/kg bw/d Systemic effects - inhalation : 13.2 mg/m³ Systemic effects - oral : 3.8 mg/kg bw/d 	
·PNECs	
 PNEC (Predicted No-Effect Concentration) aqua (freshwater): 0.027 mg/L PNEC (Predicted No-Effect Concentration) aqua (marine water): 0.0027 mg/L PNEC (Predicted No-Effect Concentration) Sewage Treatment Plant: 2 mg/L PNEC (Predicted No-Effect Concentration) sediment (freshwater): 625.79 mg/kg sediment dw PNEC (Predicted No-Effect Concentration) sediment (marine water): 62.58 mg/kg sediment dw PNEC (Predicted No-Effect Concentration) soil: 125 mg/kg soil dw PNEC (Predicted No-Effect Concentration) aqua (intermittent releases): 0.27 mg/L 	
 Additional information: This sheet is based on the current valid lists for occupational exposure limit values at the time of its pr DNELs and PNECs values are derived from the chemical safety assessment conducted for REACH. 	eparation. The
 8.2 Exposure controls General protective and hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals. Emergency eye was and safety showers should be available in the immediate vicinity of any potential exposure. Immediately remove all soiled and contaminated clothing. Avoid contact with eyes and skin. Provide local exhaust or general room ventilation to minimize exposure to dust. Personal protective equipment Respiratory protection: 	ash fountains
In case of insufficient ventilation: Avoid breathing particles by wearing a dust mask (FFP3 or FFP2 as a minimum). Avoid breathing vapors by wearing an appropriate filter cartridge mask. • Hand protection:	
Protective gloves resistant to chemicals (standard EN 374-1). They should be replaced regularly and i indication of degradation or chemical breakthrough.	t there is any
• Eye protection: Safety glasses (standard EN 166)	(Contd. on page 5)

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Personnel exposed to HOT MOLTEN or HOT LIQUID material should wear protective clothing that provides

Further information on how to manage the risks arising from dusts and from hot resins:

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• **Body protection:** Protective work clothing. Revision date: 09.11.2017

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protection against thermal burns. • Risk management measures

- HARRPA guidance - SAFE HANDLING OF - HARRPA guidance - RESIN DUST EXPLOS http://www.harrpa.eu/	NON RISKS			
SECTION 9: Physical and chemical properties				
9.1 Information on basic physical and cher General Information Appearance:	nical properties			
Form:	Solid			
Colour:	Yellow			
· Odour:	Pine			
	Light			
· Odour threshold:	Not determined			
 Change in condition Melting/freezing point: Initial boiling point and boiling range: Softening point / range: 	Not applicable. Not applicable (the substance decomposes before boiling) 92-98 °C			
· Flash point:	> 200 °C			
· Flammability (solid, gas):	Not classified flammable.			
· Auto-ignition temperature:	Not determined			
· Decomposition temperature:	>300 °C Not applicable.			
· Explosive properties:	The substance does not contain any chemical groups associated with explosive properties.			
· Oxidising properties:	The substance does not contain any chemical groups associated with oxidising properties.			
· Vapour pressure at 20 °C:	< 75 Pa			
 Density Relative density at 20 °C: 	1.0-1.1			
· Evaporation rate:	Not applicable			
· Solubility(ies)				
In water:	Insoluble			
	< 0.63 mg/L			
· Partition coefficient: n-octanol/water at 20	° C: 3.62 Log Kow			
· Viscosity Dynamic:	Not applicable (solid)			
· Surface tension:	Results obtained with two structurally related substances (rosin esters): 72.2 and to 74.0 mN/m			
9.2 Other information	No other data			

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SECTION 10: Stability and reactivity

- · 10.1 Reactivity No data from specific reactivity tests are available for this product.
- · 10.2 Chemical stability The product is stable under normal storage and handling conditions.
- · 10.3 Possibility of hazardous reactions

Resin dust may ignite on contact with electrostatic discharge or exposure to flamme or other sources of ignition.

- · 10.4 Conditions to avoid Avoid dust formation when handling the product.
- · 10.5 Incompatible materials No incompatible materials known.
- · 10.6 Hazardous decomposition products No dangerous decomposition products known.
- · Additional information:

The product is susceptible to compaction and oxidation during prolonged storage at a temperature above 30°C.

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

This substance belongs to the chemical category of rosin esters (rosin/hydrogenated rosin/polymerized rosin esterified with alcohols). Experimental data are not available or limited for the substance; information from one or several other members of the category is thus presented (properties may be predicted by interpolation to structurally related substances: glycerol, triethylene glycol, pentaerythritol, diethylene glycol, ester of rosin and hydrogenated rosin).

· Acute toxicity Based on available data, the classification criteria are not met.

· LD₅₀/LC₅₀ values relevant for classification:

By analogy with structurally related substances, the LD_{50} (dermal and oral, rat) are expected to be greater than 2000 mg/kg.

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Oral DL_{50} > 2000 mg/kg (rat) Dermal DL_{50} > 2000 mg/kg (rabbit)

· Skin corrosion/irritation:

No adverse effect was observed during a rabbit skin irritation study carried out according to the OECD test guideline 404.

• Serious eye damage/irritation:

No adverse effect was observed during a rabbit eyes irritation test conducted in accordance with the OECD test guideline 405.

Fine particles and powder may cause eye irritation by mechanical effect.

Skin sensitisation:

No evidence of a sensitization response was observed in human subjects repeatedly exposed to the substance under occlusive patch. Similarly, no signs of sensitization were observed in mice tested in a Local Lymph Node Assay (OECD 429) or when groups of guinea pigs were tested in the Guine Pig Maximization Test (GPMT - similar to the OECD 406 guideline).

· Mutagenicity/genotoxicity:

No mutagenicity was observed with structurally related substances in several in vitro assays:

- in bacteria (Ames test carried out according to OECD guideline 471);

- in mammalian cells (mouse lymphoma - test carried out according to OECD guideline 476).

No genotoxicity was observed in vitro with structurally related substances:

- in a chromosome aberration test in human lymphocytes (test carried out according to OECD guideline 473). • Carcinogenicity:

The substance is not expected to be carcinogenic based on available data on structurally related substances: no mutagenic effects observed and no hyperplasia or pre-neoplastic lesions noted in repeated dose toxicity studies.

Reproductive toxicity:

Effect on fertility:

Histological examination of reproductive tissues conducted with repeated dose toxicity studies using dietary incorporation at levels up to 1-2.5% in diet (OECD guideline 408 - 90 days - rats) on structurally similar substances, revealed no gross or microscopic changes in any reproductive organ at necropsy.

A reproduction / Developmental Toxicity Screening Test (OECD guideline 421) and a Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test (OECD guideline 422) were conducted on structurally related substances. There were no significant substance-related effects on reproductive organs, reproductive performance, gestation parameters, even at high dose (20000 ppm).

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Effect on development:

A reproduction / Developmental Toxicity Screening Test (OECD guideline 421) and a Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test (OECD guideline 422) were conducted on structurally related substances. Reductions in mean pup weight and mean litter weights seen in the presence of concurrent maternal toxicity.

Not selectively toxic to the fetus, with no adverse effects on gestation or development. No adverse effect observed. NOAEL: 1553 mg/kg bw/day (rat)

- Specific target organ toxicity single exposure:
- No specific target organ toxicity was observed in the LD_{50} determination studies.
- · Specific target organ toxicity repeated exposure:

Information is available on the subacute and subchronic oral toxicity of Rosin esters. No treatment-related or biologically relevant findings were apparent in rats following sub-chronic dietary exposure to resin acids and rosin acids, esters with glycerol, resin acids and rosin acids, hydrogenated, esters with glycerol and resin acids and rosin acids, hydrogenated, esters with pentaerythritol administered in feed at received doses equivalent to 400-500 mg/kg bw/day. Equivalent studies conducted using resin acids and rosin acids, hydrogenated, Me esters indicated adaptive changes in the liver (increased weight, hepatocyte hypertrophy) but no other signs of systemic toxicity with a BMDL10 (rat, subchronic) of 151.7 mg/kg bw/day.

Two DNELs have therefore been derived, one based on resin acids and rosin acids, hydrogenated, Me esters, the second based on repeated dose toxicity data for the other rosin esters of this category. For reasons not discussed here, the DNEL for resin acids and rosin acids, hydrogenated, Me esters is likely to be quite conservative (given the likely adaptive nature of the findings and their doubtful relevance to humans).

BMDL10 used for DNEL derivation of the whole resin esters category (section 8): 151.7 mg/kg bw/day NOAEL used for DNEL derivation of rosin ester - except Me esters : 400 mg/kg bw/d.

- · Aspiration hazard: Not applicable (solid).
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):

According to Regulation (EC) No 1272/2008, the substance is not considered to be CMR. • Additional toxicological information:

Prolonged or repeated exposure to vapours/fumes generated by heating this product may cause respiratory irritation with throat discomfort, coughing or breathing difficulty.

SECTION 12: Ecological information

· 12.1 Aquatic toxicity

8050-26-8 Resin acids and Rosin acids, esters with pentaerythritol

EL50 (48h)> 100 mg/L (daphnia) (OECD 202 - Water Accomodated Fraction)EL50(72h)> 1000 mg/L (algae) (OECD 201 - Water Accomodated Fraction)

Test réalisé sur un produit de structure similaire.

LL50(96h) > 1000 mg/L (fish) (OECD 203 - Water Accomodated Fraction) Test réalisé sur un produit de structure similaire

This substance belongs to the chemical category of rosin esters (rosin/hydrogenated rosin/polymerized rosin esterified with alcohols). Experimental data are not available or limited for the substance; information from one or several other members of the category is thus presented (properties may be predicted by interpolation to structurally related substances: glycerol, triethylene glycol, pentaerythritol, diethylene glycol, ester of rosin and hydrogenated rosin).

Short-term aquatic toxicity values were determined in tests conducted with Water Accomodated Fractions (WAF). Loading rates of the tested item are well higher than the water solubility. LL50 and EL50 similar to LC50 and EC50 are obtained by this method.

Studies carried out on similar substances (glycerol and pentaerythritol esters)

 LL_{50} (96 h), fish (Pimephales promelas): > 1000 mg/L (nominal concentration – OECD 203)

 EL_{50} (48 h), daphnia (Daphnia magna): > 100 mg/L (nominal concentration - OECD 202)

EL₅₀ (72 h), alga (Pseudokirchneriella subcapitata) : > 1000 mg/L (based on growth rate – OCDE 201)

Acute ecotoxicity studies are available for three trophic levels (fish, daphnia and algae). The lowest EC50 result was 27 mg/L from a Daphnia study with resin acids and rosin acids, hydrogenated, methyl esters. Substances in the Rosin esters category with lower molecular weights are more toxic to aquatic organisms than those with higher molecular

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(Contd. of page 7) weights. Nonetheless the EC 50 result of 27 mg/L has been used to derive most of the PNEC values at the level of this category.

• Toxicity to aquatic microorganisms:

No inhibition of sewage sludge microorganisms was observed at a nominal concentration of 20 mg/L during a ready biodegradability study (OECD 301 B – respiration rate).

- **12.2 Persistence and degradability** The susbtance is not considered to be ready biodegradable following a ready biodegradability assay (OECD 301 B - CO2 evolution).
- · 12.3 Bioaccumulative potential
- Low bioccumulative potential.

Calculated BCF (Bioconcentration Factor) values range from 85.92 and 202.4 L/kg wet weight Calculated BAF(Bioaccumulation Factor): 85.92

- **12.4 Mobility in soil** No data available.
- \cdot 12.5 Results of PBT and vPvB assessment
- · PBT:

According to Annex XIII of REACH Regulation, the substance is not considered to be Persistent, Bioaccumulative and Toxic.

· vPvB:

According to Annex XIII of REACH Regulation, the substance is not considered to be very Persistent and very Bioaccumulative.

Additional information for PBT and vPvB assessment

Biodegradability screening studies on structurally related rosin esters have failed to demonstrate ready biodegradability for this product category. However log Kow of this substance is very high and the calculated BCF (bioconcentration factor) is below the B criteria of 2000 L/Kg.

• **12.6 Other adverse effects** No data available.

SECTION 13: Disposal considerations

• 13.1 Waste treatment methods National and regional regulations have to be adhered to.

• Recommendation: The product has to be disposed of in an authorised incinerator, according to regulation.

- Uncleaned packaging
- Recommendation: Packaging has to be sent to an authorised waste treatment facility, for recycling or disposal.

SECTION 14: Transport information	
· 14.1 UN Number	Not classified as a dangerous good under transport regulation.
· 14.2 UN proper shipping name	Not classified as a dangerous good under transport regulation.
 14.3 Transport hazard class(es) 	Not applicable.
· 14.4 Packing group	Not applicable.
· 14.5 Environmental hazards	Not classified as a dangerous good under transport regulation.
 14.6 Special precautions for user 	Not applicable.
 14.7 Transport in bulk according to Annex II of Marg and the IBC Code 	Not applicable.
· Transport/Additional information:	When shipped over 100°C and below flash point: Class: 9 Item: M9 Packaging group: III Danger code: 99 Hazard label: 9 UN number: 3257 ELEVATED TEMPERATURE LIQUID, N.O.S.
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· UN "Model Regulation"

Void

SECTION 15: Regulatory information

• 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU:

The product does not fulfill the criteria for the categories of Annex I part 2.

Regulation (EC) No 1907/2006 (REACH):

The product does not contain any of the substances included in the following lists

- Annex XIV (authorisation) / substances of very high concern (SVHC)
- Annex XVII (restrictions)

· National regulations: Occupational disease - only applicable to France. See French SDS version

· 15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out.

As the substance does not meet the criteria for classification as dangerous and is not PBT or vPvB, no exposure scenarios have been developped.

SECTION 16: Other information

Information provided in this safety data sheet is based on our experience and present knowledge. It is a description of safety requirements and data given on the product and cannot be considered as specifications. They shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. This safety datasheet is provided only for information as it is not required according to article 31 of REACH regulation.

· Version: 11.1

· Emergency telephone numbers (other countries):

CHEMTREC In-Country Numbers (24/24 - 7/7) Argentina (Buenos Aires): +54 (0)11 5983 9431 Australia (Sydney): +61 (0)2 9037 2994 Bahrain (Bahrain): +973 1619 9372 Belgium (Brussels): +32 (0)2 808 32 37 Brazil (Rio de Janeiro): +55 21 3958 1449 Canada*: 1 800 424 9300 Chile (Santiago): +56 (0)22 581 4934 China*: 4001 204 937 Czech Republic (Prague): +420 228 880 039 Colombia*: 01 800 710 2151 France: +33 (0)975 18 14 07 Germany*: 0 800 181 7059 Hong Kong* (Hong Kong): 800 968 793 Hungary (Budapest): +36 (06)1 808 8425 India*: 000 800 100 7141 Indonesia*: 001 803 017 9114 Israel (Tel Aviv): +972 (0)3 763 0639 Italy*: 800 789 767 Italy (Milan): +39 02 4555 7031 Japan (Tokyo): +81 (0)3 4520 9637 Malaysia*: 1 800 815 308 Mexico*: 01 800 681 9531 Netherlands: +31 (0)858 880 596 Peru (Lima): +51 1 707 1295 Philippines*: 1 800 1 116 1020 Poland (Warsaw): +48 22 398 80 29 Singapore*: 800 101 2201 Singapore: +65 3158 1349 South Africa*: 0 800 983 611 South Korea*: 00 308 13 2549

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Spain*: 900 86 85 38 Sweden (Stockholm): +46 (0)8 5250 3403 Switzerland: +41 (0)43 508 20 11 Taiwan*: 00801 14 8954 Thailand*: 001 800 13 203 9987 United Kingdom (London): +44 (0)870 820 0418 USA*: 1 800 424 9300 (*) Phone numbers for countries marked with an asterisk must be dialed within the country.	(Contd. of page 9)
· Department issuing technical data sheet: Commercial	
 Abbreviations and acronyms: BMDL 10: The lower 95% confidence interval of a Benchmark- dose representing a 10% response bw: body weight CLP: Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging dw: dry weight EC: European Commission EC₅₀: Concentration which leads to a 50 % reduction in treated organism responses compared to untreated organism concentration which causes effects to 50 % of the tested organisms (daphnids) EL50: Loading rate which leads to a 50% reduction in treated organism (daphnids) EL50: Loading rate which leads to a 50% reduction in treated organisms (daphnids) LC₅₀: Lethal concentration for 50 % of the tested organisms (daphnids) LD₅₀: Lethal dose for 50 % of animals exposed by oral or dermal route LL50: Median lethal loading rate (lethal level for 50% of treated animals) NOAEL: No Observed Adverse Effect Level NOEC: No observed effect concentration OECD: Guidelines from the Organisation for Economic Co-operation and Development PBT: Persistent, Bioaccumulating and Toxic substance. vPvB: very Persistent and very Bioaccumulating substance. 	responses (algae) or esponses (tests on algae) or
 Sources: Literature and company data REACH dossier data 	
• Modified data compared to the previous version: The legal entity has a new identity following the merger by absorption of Granel by DRT. Sections 2, 4, 7, and 8 have been updated to better take into account the risks arising from dus	ets and hot products.