



SAFETY DATA SHEET DOWSIL RSN-0804 RESIN

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

1.1. Product identifier

Product name DOWSIL RSN-0804 RESIN
Product number 53437
Synonyms; trade names DOW CORNING RSN-0804 RESIN

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

Identified uses Additive Surface coating

1.3. Details of the supplier of the safety data sheet

Supplier Univar
Aquarius House
6 Mid Point Business Park
Bradford
BD3 7AY
+44 1274 267300
+44 1274 267306
sds@univar.com

1.4. Emergency telephone number

Emergency telephone SGS - +32 (0)3 575 55 55 (24h)

Sds No. 53437

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Flam. Liq. 2 - H225
Health hazards Skin Irrit. 2 - H315 Repr. 2 - H361d STOT SE 3 - H336 STOT RE 2 - H373 Asp. Tox. 1 - H304
Environmental hazards Aquatic Chronic 3 - H412

2.2. Label elements

Hazard pictograms



Signal word

Danger

DOWSIL RSN-0804 RESIN

Hazard statements	H225 Highly flammable liquid and vapour. H315 Causes skin irritation. H361d Suspected of damaging the unborn child. H336 May cause drowsiness or dizziness. H373 May cause damage to organs (Nervous system) through prolonged or repeated exposure if inhaled. H412 Harmful to aquatic life with long lasting effects. H304 May be fatal if swallowed and enters airways.
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P331 Do NOT induce vomiting. P370+P378 In case of fire: Use foam, carbon dioxide or dry powder to extinguish.
Contains	TOLUENE

2.3. Other hazards

Product is a static accumulator Flammable Liquid This product contains a substance classified as vPvB. This product contains a substance classified as PBT.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

TOLUENE CAS number: 108-88-3 EC number: 203-625-9 REACH registration number: 01-2119471310-51-XXXX	>=34.0 - <=40.0%
Classification Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 Repr. 2 - H361d STOT SE 3 - H336 STOT RE 2 - H373 Asp. Tox. 1 - H304 Aquatic Chronic 3 - H412	
OCTAMETHYLCYCLOTETRASILOXANE CAS number: 556-67-2 EC number: 209-136-7 REACH registration number: 01-2119529238-36-XXXX	>=0.07 - <=0.12%
Classification Flam. Liq. 3 - H226 Repr. 2 - H361f Aquatic Chronic 4 - H413	

The full text for all hazard statements is displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

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General information	First aid personnel should wear appropriate protective equipment during any rescue. Wear protective clothing as described in Section 8 of this safety data sheet.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention immediately.
Skin contact	After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Get medical attention if any discomfort continues. Provide shower facilities near the workplace.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

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

General information	Suspected of damaging the unborn child.
Inhalation	May cause drowsiness or dizziness. May cause damage to organs (Nervous system) through prolonged or repeated exposure if inhaled. Overexposure may cause the following adverse effects: May cause respiratory irritation. Central nervous system depression. Headache. Dizziness. Drowsiness. Unconsciousness.
Ingestion	May be fatal if swallowed and enters airways.
Skin contact	Causes skin irritation. Dryness and/or cracking.
Eye contact	May cause temporary eye irritation.

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

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	May travel considerable distance to source of ignition and flash back. When heated and in case of fire, toxic vapours/gases may be formed. Vapours may form explosive mixtures with air.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Formaldehyde Benzene. Chlorine. Oxides of the following substances: Carbon. Silicon.

5.3. Advice for firefighters

Protective actions during firefighting	No action shall be taken without appropriate training or involving any personal risk. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Do not use water jet as an extinguisher, as this will spread the fire. Contain and collect extinguishing water. Avoid the spillage or runoff entering drains, sewers or watercourses. Evacuate area.
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Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. Eliminate all sources of ignition.

6.2. Environmental precautions

Environmental precautions Harmful to aquatic life with long lasting effects. Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Use only non-sparking tools. Absorb spillage with inert, damp, non-combustible material. Use water spray to reduce vapours. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid contact with skin, eyes and clothing. Avoid inhalation of vapours and spray/mists. Keep container tightly sealed when not in use. Eliminate all sources of ignition. Avoid heat, flames and other sources of ignition. Take precautionary measures against static discharges. Avoid spilling. Avoid release to the environment. Use only non-sparking tools. Observe good chemical hygiene practices. Provide adequate general and local exhaust ventilation. Use explosion-proof electrical, ventilating and lighting equipment. Ground/bond container and receiving equipment. Product is a static accumulator Static electricity and formation of sparks must be prevented. Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. Handle under inert gas. Earth container and transfer equipment to eliminate sparks from static electricity.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Store locked up. Container must be kept tightly closed when not in use. Avoid heat, flames and other sources of ignition. Store away from the following materials: Strong oxidising agents. Organic Peroxide Flammable Solid Pyrophoric substances Self-heating In Contact with Water Emits Flammable Gas Explosive Class 2: Gases.

Storage class Flammable liquid storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

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TOLUENE

Sk

Long-term exposure limit (8-hour TWA): WEL 50 ppm 191 mg/m³

Short-term exposure limit (15-minute): WEL 100 ppm 384 mg/m³

OCTAMETHYLCYCLOTETRASILOXANE

Long-term exposure limit (8-hour TWA): SUP 10 ppm

Sk = Can be absorbed through the skin.

WEL = Workplace Exposure Limit

Ingredient comments

WEL = Workplace Exposure Limits

TOLUENE (CAS: 108-88-3)

DNEL

Industry - Inhalation; Short term systemic effects: 384 mg/m³
 Industry - Inhalation; Long term systemic effects: 192 mg/m³
 Industry - Dermal; Long term systemic effects: 384 mg/kg/day
 Industry - Inhalation; Short term local effects: 384 mg/m³
 Industry - Inhalation; Long term local effects: 192 mg/m³
 Consumer - Inhalation; Short term systemic effects: 226 mg/m³
 Consumer - Inhalation; Long term systemic effects: 56.5 mg/m³
 Consumer - Oral; Long term systemic effects: 8.13 mg/kg/day
 Consumer - Dermal; Long term systemic effects: 226 mg/kg/day
 Consumer - Inhalation; Short term local effects: 226 mg/m³
 Consumer - Inhalation; Long term local effects: 56.5 mg/m³

PNEC

- Fresh water; 0.68 mg/l
 - marine water; 0.68 mg/l
 - Intermittent release; 0.68 mg/l
 - STP; 13.61 mg/l
 - Sediment (Freshwater); 16.39 mg/l
 - Sediment (Marinewater); 16.39 mg/kg
 - Soil; 2.89 mg/l

OCTAMETHYLCYCLOTETRASILOXANE (CAS: 556-67-2)

DNEL

Workers - Inhalation; Short term systemic effects: 73 mg/m³
 Workers - Inhalation; Short term local effects: 73 mg/m³
 Workers - Inhalation; Long term systemic effects: 73 mg/m³
 Workers - Inhalation; Long term local effects: 73 mg/m³
 Consumer - Inhalation; Short term systemic effects: 13 mg/m³
 Consumer - Inhalation; Short term local effects: 13 mg/m³
 Consumer - Inhalation; Long term systemic effects: 13 mg/m³
 Consumer - Inhalation; Long term local effects: 13 mg/m³
 Consumer - Oral; Short term systemic effects: 3.7 mg/kg/day
 Consumer - Oral; Long term systemic effects: 3.7 mg/kg/day

PNEC

- Fresh water; 0.00044 mg/l
 - marine water; 0.00044 mg/l
 - Sediment (Freshwater); 0.64 mg/kg
 - Sediment (Marinewater); 0.064 mg/kg
 - Soil; 0.13 mg/kg
 - STP; > 10 mg/l

8.2. Exposure controls

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Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. The selected gloves should have a breakthrough time of at least 2 hours. Butyl rubber. Chloroprene rubber. Neoprene. Nitrile rubber. Polyethylene. Polyvinyl alcohol (PVA). Polyvinyl chloride (PVC). Viton rubber (fluoro rubber). Rubber (natural, latex). Thickness: > 0.35 mm To protect hands from chemicals, gloves should comply with European Standard EN374.

Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination.

Hygiene measures

When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas. Eye wash facilities and emergency shower must be available when handling this product.

Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. If ventilation is inadequate, suitable respiratory protection must be worn. Organic vapour filter. Gas filter, type A EN 136/140/141/145/143/149

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless to pale yellow.
Odour	Solvent.
Odour threshold	No information available.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	> 100°C @ 760 mm Hg
Flash point	7°C Pensky-Martens closed cup.
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.

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Upper/lower flammability or explosive limits	No information available.
Other flammability	No information available.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	1.07
Bulk density	No information available.
Solubility(ies)	No information available.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	30 cSt @ 25°C
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	No information available.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	Not determined.
Refractive index	No information available.
Particle size	No information available.
Molecular weight	No information available.
Volatility	No information available.
Saturation concentration	No information available.
Critical temperature	No information available.
Volatile organic compound	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	The following materials may react with the product: Strong oxidising agents. When heated, vapours/gases hazardous to health may be formed. Will decompose at temperatures exceeding 150°C. Formaldehyde Provide adequate ventilation. Vapours may form explosive mixtures with air. Highly flammable liquid and vapour.
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10.4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time. Take precautionary measures against static discharges. Avoid heat, flames and other sources of ignition.
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10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Formaldehyde Benzene. Chlorine. Oxides of the following substances: Carbon. Silicon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Not determined.

Acute toxicity - dermal

Notes (dermal LD₅₀) Not determined.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Not determined.

Skin corrosion/irritation

Animal data Causes skin irritation. Dryness and/or cracking.

Serious eye damage/irritation

Serious eye damage/irritation May cause temporary eye irritation.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Not sensitising. Guinea pig

Germ cell mutagenicity

Genotoxicity - in vitro Does not contain any substances known to be mutagenic.

Carcinogenicity

Carcinogenicity There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - fertility Contains a substance/a group of substances which may damage fertility.

Reproductive toxicity - development Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

STOT - single exposure May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure May cause damage to organs (Nervous system) through prolonged or repeated exposure if inhaled.

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

General information Suspected of damaging the unborn child.

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Inhalation	May cause drowsiness or dizziness. May cause damage to organs (Nervous system) through prolonged or repeated exposure if inhaled. Overexposure may cause the following adverse effects: May cause respiratory irritation. Central nervous system depression. Headache. Dizziness. Drowsiness. Unconsciousness.
Ingestion	May be fatal if swallowed and enters airways.
Skin contact	Causes skin irritation. Dryness and/or cracking.
Eye contact	May cause temporary eye irritation.

Toxicological information on ingredients.

TOLUENE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,580.0

Species Rat

ATE oral (mg/kg) 5,580.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 5,000.0

Species Rabbit

ATE dermal (mg/kg) 5,000.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 28.1

Species Rat

ATE inhalation (vapours mg/l) 28.1

Skin corrosion/irritation

Skin corrosion/irritation Irritating to skin. Rabbit

Serious eye damage/irritation

Serious eye damage/irritation Slightly irritating. Rabbit

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative. Bacterial reverse mutation test: Negative.

Genotoxicity - in vivo Chromosome aberration: Negative.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

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IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

Reproductive toxicity

Reproductive toxicity - fertility -, Inhalation, Vapour, Rat Negative.

Reproductive toxicity - development Suspected of damaging the unborn child. Teratogenicity: -, Vapour, Inhalation, Rat Positive.

Specific target organ toxicity - single exposure

STOT - single exposure May cause drowsiness or dizziness.

Target organs Liver Kidneys Central nervous system Eyes

Specific target organ toxicity - repeated exposure

STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure if inhaled. LOAEL (26 wk) 1.875 mg/l, Inhalation, Vapour, Rat

Target organs Eyes Liver Kidneys Central nervous system

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

Inhalation May cause damage to organs through prolonged or repeated exposure if inhaled. Vapours may cause drowsiness and dizziness.

Ingestion May be fatal if swallowed and enters airways.

Skin contact Irritating to skin.

Eye contact Irritating to eyes.

Target organs Liver Kidneys Central nervous system

OCTAMETHYLCYCLOTETRASILOXANE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ > 4800 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 2.5 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 2,975.0

Species Rat

Notes (inhalation LC₅₀) LC₅₀ 2975 ppm, Inhalation, Vapour, Rat
LD₅₀ (4h) 36 mg/l, Inhalation, Dust/Mist, Rat OECD 403

ATE inhalation (vapours mg/l) 2,975.0

Skin corrosion/irritation

Skin corrosion/irritation Not irritating. Rabbit

Serious eye damage/irritation

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Serious eye damage/irritation	Not irritating. Rabbit
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Based on available data the classification criteria are not met.
<u>Skin sensitisation</u>	
Skin sensitisation	Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Ames test: Negative. Gene mutation: Negative. Chromosome aberration: Negative. DNA damage and/or repair: Negative.
Genotoxicity - in vivo	Gene mutation: Negative. Rat Inhalation Vapour Gene mutation: Negative. Rat Oral
<u>Carcinogenicity</u>	
Carcinogenicity	Results from a 2 year repeated vapour inhalation exposure study to rats of octamethylcyclotetrasiloxane (D4) indicate effects (benign uterine adenomas) in the uterus of female animals. This finding occurred at the highest exposure dose (700 ppm) only. Studies to date have not demonstrated if these effects occur through pathways that are relevant to humans. Repeated exposure in rats to D4 resulted in protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Suspected of damaging fertility. Two-generation study - , Inhalation, Vapour, Rat
Reproductive toxicity - development	Teratogenicity: Based on available data the classification criteria are not met. Developmental toxicity: - : , Inhalation, Vapour, Rabbit
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	No information available.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure. No adverse effects known., Dose level: <= 100 mg/kg, Oral, Rat No adverse effects known., Dose level: <= 1mg/l/6h/d , Inhalation, Vapour, No adverse effects known., Dose level: <= 200 mg/kg, Dermal,
<u>Aspiration hazard</u>	
Aspiration hazard	Not classified.
<u>Inhalation</u>	
Inhalation	May cause respiratory system irritation.
<u>Ingestion</u>	
Ingestion	May cause discomfort if swallowed.
<u>Skin contact</u>	
Skin contact	Prolonged skin contact may cause temporary irritation.
<u>Eye contact</u>	
Eye contact	May cause temporary eye irritation.

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Medical considerations

Octamethylcyclotetrasiloxane administered to rats by inhalation at concentrations of 500 and 700 ppm resulted in statistically significant decreases in the number of pups born and the live litter size in both the first and second generations. Prolonged estrous cycles, and decreased mating and fertility indices were observed following 700 ppm exposure in the second generation only. There were also increases in the incidence of deliveries of offspring extending over an unusually long time period (dystocia). Results from a 2 year repeated vapor inhalation exposure study to rats of octamethylcyclotetrasiloxane (D4) indicate effects (benign uterine adenomas) in the uterus of female animals. This finding occurred at the highest exposure dose (700 ppm) only. Studies to date have not demonstrated if these effects occur through pathways that are relevant to humans. Based on the available information on its potential to cause harm to human health, Health Canada, in a 2008 screening assessment, has concluded that octamethylcyclotetrasiloxane is not entering the environment in a quantity or concentration or under conditions that constitute or may constitute a danger in Canada to human life or health (http://www.ec.gc.ca/substances/ese/eng/challenge/batch2/batch2_556-67-2.cfm). Repeated exposure in rats to D4 resulted in what appears to be protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown.

SECTION 12: Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

Ecological information on ingredients.

TOLUENE

Ecotoxicity Harmful to aquatic life with long lasting effects.

OCTAMETHYLCYCLOTETRASILOXANE

Ecotoxicity The product contains a substance which may cause long-term adverse effects in the environment.

12.1. Toxicity

Toxicity Harmful to aquatic life with long lasting effects.

Ecological information on ingredients.

TOLUENE

Toxicity Harmful to aquatic life.

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 5.5 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC50, 48 hours: 3.78 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC50, 72 hours: 10 mg/l,

Acute toxicity - microorganisms EC50, 24 hour: 84 mg/l, (Nitrosomonas sp.)

Chronic aquatic toxicity

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Chronic toxicity - fish early life stage NOEC, 40 days: 1.39 mg/l, Oncorhynchus mykiss (Rainbow trout)
LOEC, 40 days: 2.77 mg/l, Oncorhynchus mykiss (Rainbow trout)

Chronic toxicity - aquatic invertebrates NOEC, 21 day: 1 mg/l, Daphnia magna
NOEC, 7 day: 0.74 mg/l,
(Ceriodaphnia dubia)

OCTAMETHYLCYCLOTETRASILOXANE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: > 0.022 mg/l, Oncorhynchus mykiss (Rainbow trout)
Not toxic at limit of water solubility.
LC₅₀, 14 day: > 0.0063 mg/l, Cyprinodon variegatus (Sheepshead minnow)
Not toxic at limit of water solubility.
LC₅₀, 14 day: 0.0063 mg/l, Cyprinodon variegatus (Sheepshead minnow)
Not toxic at limit of water solubility.

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: > 0.015 mg/l, Daphnia magna
Not toxic at limit of water solubility.
EC₅₀, 96 hour: >0.0091 mg/l, Marinewater invertebrates
(Mysidopsis bahia)
Not toxic at limit of water solubility.

Acute toxicity - aquatic plants EC₅₀, 72 hours: 0.022 mg/l, Pseudokirchneriella subcapitata
Not toxic at limit of water solubility.

Chronic aquatic toxicity

Chronic toxicity - fish early life stage NOEC, 93 day: > 0.0044 mg/l, Oncorhynchus mykiss (Rainbow trout)
Not toxic at limit of water solubility.

Chronic toxicity - aquatic invertebrates NOEC, 21 day: > 0.0079 mg/l, Daphnia magna
Not toxic at limit of water solubility.

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

Ecological information on ingredients.

TOLUENE

Persistence and degradability The product is readily biodegradable.

Biodegradation - Degradation 86%: 20 day

OCTAMETHYLCYCLOTETRASILOXANE

Persistence and degradability Not readily biodegradable.

Stability (hydrolysis) pH7 - Half-life : 69.3 - 144 hour @ 24.6°C

Biodegradation - Degradation 3.7%: 28 day
OECD 310

12.3. Bioaccumulative potential

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Partition coefficient No information available.

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Ecological information on ingredients.

TOLUENE

Bioaccumulative potential The product is not bioaccumulating. BCF: 90, Leuciscus idus (Golden orfe)

Partition coefficient log Pow: 2.65

OCTAMETHYLCYCLOTETRASILOXANE

Bioaccumulative potential BCF: 12400, Pimephales promelas (Fat-head Minnow)

Partition coefficient log Pow: 6.48

12.4. Mobility in soil

Mobility Not determined.

Ecological information on ingredients.

TOLUENE

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

Surface tension 0.0242 mN/m @ 20°C

OCTAMETHYLCYCLOTETRASILOXANE

Mobility Not considered mobile.

Adsorption/desorption coefficient - Koc: > 5000 @ 20°C

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product contains a substance classified as PBT. This product contains a substance classified as vPvB.

Ecological information on ingredients.

TOLUENE

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

OCTAMETHYLCYCLOTETRASILOXANE

Results of PBT and vPvB assessment Octamethylcyclotetrasiloxane (D4) meets the current REACH Annex XIII criteria for PBT and vPvB. In Canada, D4 has been assessed and deemed to meet the PiT criteria. However, D4 does not behave similarly to known PBT/vPvB substances. The weight of scientific evidence from field studies shows that D4 is not biomagnifying in aquatic and terrestrial food webs. D4 in air will degrade by reaction with naturally occurring hydroxyl radicals in the atmosphere. Any D4 in air that does not degrade by reaction with hydroxyl radicals is not expected to deposit from the air to water, to land, or to living organisms.

12.6. Other adverse effects

Other adverse effects Not determined.

Ecological information on ingredients.

DOWSIL RSN-0804 RESIN**TOLUENE**

Other adverse effects Not determined.

OCTAMETHYLCYCLOTETRASILOXANE

Other adverse effects Not available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

General information Waste is classified as hazardous waste. Do not puncture or incinerate, even when empty.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General Wear protective clothing as described in Section 8 of this safety data sheet.

14.1. UN number

UN No. (ADR/RID) 1294

UN No. (IMDG) 1294

UN No. (ICAO) 1294

UN No. (ADN) 1294

14.2. UN proper shipping name

Proper shipping name (ADR/RID) TOLUENE SOLUTION

Proper shipping name (IMDG) TOLUENE SOLUTION

Proper shipping name (ICAO) TOLUENE SOLUTION

Proper shipping name (ADN) TOLUENE SOLUTION

14.3. Transport hazard class(es)

ADR/RID class 3

ADR/RID classification code F1

ADR/RID label 3

IMDG class 3

ICAO class/division 3

ADN class 3

Transport labels**14.4. Packing group**

ADR/RID packing group II

IMDG packing group II

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ICAO packing group II

ADN packing group II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS F-E, S-D

ADR transport category 2

Emergency Action Code 3YE

Hazard Identification Number 33
(ADR/RID)

Tunnel restriction code (D/E)

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

Transport in bulk according to No information required.

Annex II of MARPOL 73/78

and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Commission Regulation (EU) No 2015/830 of 28 May 2015.

This product may impact SEVESO storage regulations.

Restrictions (Annex XVII Regulation 1907/2006)

CAUTION - Chemical may be subject to REACH RESTRICTIONS - see Annex XVII. This product is/contains a substance that is included in REGULATION (EC) No 1907/2006 (REACH) ANNEX XVII - RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES. Entry number: 70 Entry number: 48 Toluene

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.
DSL

US - TSCA

All the ingredients are listed or exempt.

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Australia - AICS

All the ingredients are listed or exempt.

Korea - KECI

All the ingredients are listed or exempt.

China - IECSC

All the ingredients are listed or exempt.

Philippines – PICCS

All the ingredients are listed or exempt.

New Zealand - NZIOC

All the ingredients are listed or exempt.

SECTION 16: Other information

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Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
 CAS: Chemical Abstracts Service.
 DNEL: Derived No Effect Level.
 IATA: International Air Transport Association.
 IMDG: International Maritime Dangerous Goods.
 Kow: Octanol-water partition coefficient.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 PBT: Persistent, Bioaccumulative and Toxic substance.
 PNEC: Predicted No Effect Concentration.
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
 vPvB: Very Persistent and Very Bioaccumulative.
 IARC: International Agency for Research on Cancer.
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
 cATpE: Converted Acute Toxicity Point Estimate.
 BCF: Bioconcentration Factor.
 BOD: Biochemical Oxygen Demand.
 EC₅₀: 50% of maximal Effective Concentration.
 LOAEC: Lowest Observed Adverse Effect Concentration.
 LOAEL: Lowest Observed Adverse Effect Level.
 NOAEC: No Observed Adverse Effect Concentration.
 NOAEL: No Observed Adverse Effect Level.
 NOEC: No Observed Effect Concentration.
 LOEC: Lowest Observed Effect Concentration.
 DMEL: Derived Minimal Effect Level.
 EL50: Exposure Limit 50
 hPa: Hectopascal
 LL50: Lethal Loading fifty
 OECD: Organisation for Economic Co-operation and Development
 POW: Octanol-water partition coefficient
 SCBA: self-contained breathing apparatus
 STP: Sewage Treatment Plant
 VOC: Volatile Organic Compounds

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
 Aquatic Acute = Hazardous to the aquatic environment (acute)
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Key literature references and sources for data

Supplier's information.

Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date

09/07/2019

Version number

2.000

Supersedes date

10/01/2018

SDS number

53437

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SDS status

Approved.

Hazard statements in full

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H361d Suspected of damaging the unborn child.

H361f Suspected of damaging fertility.

H373 May cause damage to organs through prolonged or repeated exposure.

H373 May cause damage to organs (Nervous system) through prolonged or repeated exposure if inhaled.

H412 Harmful to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

Signature

Lisa Bland