Product	RUWAC DEFOAMER_EN
Revision date	01/03/2017
Revision	1

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Safety Data Sheet (SDS)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name	RUWAC DEFOAMER_EN
Synonyms, Trade names	No information available.

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

Identified uses	Defoamers.
	Anti-foaming agent.
Uses advised against	Any other purpose.

<u>1.3 Details of the supplier of the safety data sheet</u>

Supplier	Renishaw plc
	Brooms Road
	Stone Business Park
	Stone, Staffordshire
	ST15 0SH
	United Kingdom
	Tel: +44 (0) 1785 285000 (during UK office hours 09:00 to 17:00 UTC).
Contact person	msds@renishaw.com
1.4 Emergency telephone number	

Emergency telephone

999 / 911 or local emergency number.

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (EC 1272/2008) Physical and chemical hazards Human health Environment	Not classified Not classified Not classified
2.2 Label elements	
Contains	Not applicable
Label in accordance with (EC) no. 1272/2008	No pictogram required
Signal word	No Signal Word
Hazard statements	No hazard statements required
Precautionary statements	No precautionary statements required

2.3 Other hazards

This product is not classified as hazardous. The information in this datasheet is given for guidance only.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Not applicable.

3.2 Mixtures

Name	Product identifier	Reg. EU 1272/2008	%
Polydimethylsiloxane	CAS-No.: EC No.:		1-100%

The full text for all hazard statements are displayed in section 16.

Composition comments

The data shown are in accordance with the latest EC Directives. This product is non hazardous, the information is given for guidance only.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General information	Provide general first aid, rest, warmth and fresh air. As a general rule, in case of doubt or if symptoms persist, always call a doctor. Seek medical attention for all burns and eye injuries, regardless how minor they may seem. First aid personnel must be aware of own risk during rescue.
Inhalation	If this product is inhaled and symptoms occur, move the exposed person to fresh air promptly. If breathing is difficult, give oxygen. Seek medical attention. Keep person warm and at rest.
Ingestion	If this product is ingested, remove victim immediately from source of exposure. Rinse mouth thoroughly. Do not induce vomiting. Provide fresh air, warmth and rest, preferably in comfortable upright sitting position. Get medical attention immediately! Never give anything by mouth to an unconscious person.
Skin contact	Immediately wash with water, preferably under a shower, removing contaminated clothing while washing proceeds. Obtain medical attention if irritation persists or if blistering occurs. Contaminated clothing should be washed before re-use.
Eye contact	Do not rub eye. If this product contacts the eyes, gently flush eyes with water for at least fifteen (15) minutes, lifting the upper and lower eyelids occasionally. Avoid contaminating unaffected eye. Remove contact lenses if present and easy to do so. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	No specific symptoms noted.
Ingestion	No specific symptoms noted.
Skin contact	No specific symptoms noted.
Eye contact	May cause temporary eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to the physician	Treat symptomatically.
Notes to the physician	i i cai symptomaticany.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Extinguishing media	Use fire-extinguishing media appropriate for surrounding materials. Foam, dry powder, carbon dioxide (CO2), water spray.
Unsuitable extinguishing media	None noted.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products	In case of thermal decomposition: Small quantities of formaldehyde may be formed at
	temperatures > 150 °C. In case of fire, toxic gases (CO, CO2,) may be formed.
Unusual fire & explosion hazards	No unusual fire or explosion hazards noted.
Specific hazards	If heated, harmful vapours may be formed. Floors may become slippery, avoid falls.
-	No unusual fire or explosion hazards noted.

5.3 Advice for firefighters

Special fire fighting procedures	If possible, fight fire from protected position. Avoid breathing fire vapours. Ventilate closed spaces before entering them. Keep up-wind to avoid fumes. Containers close to fire should be removed immediately or cooled with water if safe to do so.
Protective equipment for firefighter	s Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures		
Personal precautions For emergency responders	Do not touch or walk through spilled material. Evacuate and ventilate area. Eliminate all sources of ignition. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation. In case of inadequate ventilation, use respiratory protection. Keep unnecessary and unprotected personnel from entering. Follow safe handling advice and personal protective equipment recommendations for normal use of product.	
6.2 Environmental precautions		
Environmental precautions	Do not discharge onto the ground or into water courses.	
6.3 Methods and material for containment and cleaning up		
Spill clean up methods	Stop leak if possible without risk. DO NOT touch spilled material! Wear necessary protective equipment. Ventilate and evacuate the area. Eliminate all sources of ignition. Wear respirator if ventilation is not adequate. In case of spills, beware of slippery floors and surfaces. Absorb spillage with non-combustible, absorbent material - sand. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labelled container. Wash work area with water.	
6.4 Reference to other sections		
Reference to other sections	See section 1 for emergency contact. For personal protection, see section 8. For waste disposal, see section 13.	

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

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Handling	Keep away from heat, sparks and open flame. Do not eat, drink or smoke when using the product. Do not use contact lenses. Avoid contact with skin and eyes. Avoid inhalation of vapours. Provide good ventilation. Wear personal protective equipment. Handle and open container with care. Do not mix with other chemicals. Observe good industrial hygiene practices. Stir well before use.	
7.2 Conditions for safe storage, including any incompatibilities		
Storage precautions	Keep away from heat, sparks, direct sunlight and open flames. Store separately from acids, alkalies and oxidising agents. Store away from flammable substances. Store in tightly closed original container at a temperature above 0°C. Keep container closed and store away from water or moisture.	
Storage class	Chemical storage.	
7.3 Specific end use(s)		
Specific end use(s) Usage description	The identified uses for this product are detailed in Section 1. Use only according to directions.	

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance Colour Odour	Liquid. Colourless. Slight.
Odour threshold - lower	No information available.
Odour threshold - upper	No information available.
pH-Value, Conc. Solution	No information available.
pH-Value, Diluted solution	No information available.
Melting point	No information available.
Initial boiling point and boiling range	100.00 °C
Flash point	Not applicable.
Evaporation rate	No information available.
Flammability state	No information available.

	Flammability limit - lower(%)	No information available.
	Flammability limit - upper(%)	No information available.
	Vapour pressure	No information available.
	Vapour density (air=1)	No information available.
	Relative density	No information available.
	Bulk density	No information available.
	Solubility	Miscible.
	Decomposition temperature	No information available.
	Partition coefficient; n- Octanol/Water	No information available.
	Auto ignition temperature (°C)	No information available.
	Viscosity	No information available.
	Explosive properties	Not classified as explosive.
	Oxidising properties	No information available.
<u>9.2</u>	Other information	
	Molecular weight	No information available.
	Volatile organic compound	No information available.
	Other information	Density @ 20°C: ca. 1 g/cm ³ .

SECTION 10: STABILITY AND REACTIVITY		
10.1 Reactivity		
Reactivity	Stable under recommended transport and storage conditions and under recommended use.	
10.2 Chemical stability		
<u>10.2 Chemical Stabinty</u>		
Stability	Stable under normal temperature conditions and recommended use.	
10.3 Possibility of hazardous reactions		
Hazardous reactions	Avoid contact with acidic, basic or oxidizing materials.	
Hazardous polymerisation	No information available.	
Polymerisation description	Unknown.	
10.4 Conditions to Avoid		
Conditions to avoid	Heat, sparks, open flames, temperature extremes and direct sunlight.	
10.5 Incompatible materials		
Materials to avoid	Store separately from acids, alkalies, and oxidising agents. Water, moisture.	
10.6 Hazardous decomposition products		
Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other harmful gases	
	or vapors. In case of thermal decomposition: Small quantities of formaldehyde may be	
	formed at temperatures > 150 °C.	

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Toxicological information	No toxicological information for the overall finished product.
Acute toxicity (Oral LD50) Acute toxicity (Dermal LD50) Acute toxicity (Inhalation LD50)	No information available. No information available. No information available.
Serious eye damage/Irritation	May cause temporary eye irritation.
Skin corrosion/Irritation	No information available.
Respiratory sensitisation Skin sensitisation	No information available. No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Specific target organ toxicity - sing	le exposure:
STOT - Single exposure Specific target organ toxicity - repe STOT - Repeated exposure	No information available. ated exposure: No information available.
Specific target organ toxicity - repe	ated exposure:
Specific target organ toxicity - repe STOT - Repeated exposure Inhalation Ingestion Skin contact Eye contact	ated exposure: No information available. No specific symptoms noted. No specific symptoms noted. No specific symptoms noted. May cause temporary eye irritation. When handling waste, consideration should be made to the safety precautions applying to

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute toxicity - Aquatic plants	No information available.
Acute toxicity - Microorganisms	No information available.
Chronic toxicity - Fish	No information available.
Chronic toxicity - Aquatic	No information available.
nvertebrates	
Chronic toxicity - Aquatic plants	No information available.
Chronic toxicity - Microorganisms	No information available.
Ecotoxicity	No Ecological information on the finished product.
Eco toxilogical information	No ecological toxicity available on the overall finished product.

Degradability	Polydimethylsiloxanes are eliminated from water by adsorption to activated sludge. CSB: 580 mg O2/g. BSB5: 140 mg O2/g. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.
Biological oxygen demand Chemical oxygen demand	No information available. No information available.
12.3 Bioaccumulative potential	
Bioaccumulative potential	No data available on bioaccumulation.

Bioaccumulative potential	No data available on bioaccumula
Bioacculmation factor	No information available.

Partition coefficient; n- Octanol/Water	No information available.
<u>12.4 Mobility in soil</u> Mobility	The product is miscible with water. May spread in water systems.
12.5 Results of PBT and vPvB assessmen Results of PBT and vPvB assessment	
<u>12.6 Other adverse effects</u> Other adverse effects	No information available.

SECTION 13: DISPOSAL CONSIDERATIONS	
Waste management	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
13.1 Waste treatment methods	
Disposal methods	Dispose of waste and residues in accordance with local authority requirements, and in accordance with all local, national and international regulations. For waste disposal, use a licensed industrial waste disposal agent.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

UN no. (ADR) UN no. (IMDG) UN no. (IATA) 14.2 UN proper shipping name	Not applicable. Not applicable. Not applicable.	
ADR proper shipping name IMDG proper shipping name IATA proper shipping name	Not applicable. Not applicable. Not applicable.	
<u>14.3 Transport hazard class(es)</u>		
ADR class IMDG class IATA class	Not applicable. Not applicable. Not applicable.	
Transport labels	Not applicable	
14.4 Packing group		
ADR/RID/ADN packing group IMDG packing group IATA packing group	Not applicable. Not applicable. Not applicable.	
14.5 Environmental hazards		
ADR IMDG IATA	No No No	
14.6 Special precautions for user		
EMS Emergency action code Hazard no. (ADR) Tunnel restriction code	Not applicable. Not applicable. Not applicable. Not applicable.	

14.7 Transport in bulk according to annex II of MARPOL73/78 and the IBC code

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

EU legislation	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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments. The UN Globally Harmonized System (GHS) Safety Data Sheet format (Annex IV) is implemented as Annex II of REACH EU No 453/2010 of 20th May 2010 amending regulation (EC) No 1907/2006.
Approved code of practice	Workplace Exposure Limits Guidance Note EH40/2005.
Chemical safety assessment	No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

This Safety Data Sheet is in accordance with Reach Regulation (EC) No 453/2010. This is a first issue. 01/03/2017 1 Approved
Approved.

Hazard statements in full

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.