

TRS RA 360**0293**

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name	TRS RA 360 Antifouling
Part No.	257-0-301
Application	Antifouling Refer to technical datasheet
Supplier	Rangafarin
Contact Person	00982144986125-8
Emergency telephones	00982144986130
Manufacturer	Rangafarin

2. HAZARDS IDENTIFICATION

Flammable. Harmful by inhalation, in contact with skin and if swallowed. May cause sensitization by skin contact. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Further information about hazards and environmental effect, see section 11 and 12.

3. COMPOSITION/INFORMATION ON INGREDIENTS

NAME	EC No.	CAS No.	Content	Symbol	R-phrases
Ethylbenzene	202-849-4	100-41-4	1-5%	Xn, F	R-11, 20
Dichloro- N- [(dimethylamino) sulphonyl] fluoro-N- (p-toly) methanesulphenamide	211-986-9	731-27-1	1-5%	T, N	R- 50/53, 23,48/20, 43, 36/37/38
butanone	201-159-0	78-93-3	1-5%	Xi, F	R-11, 36, 66, 67
dicopper oxide	215-270-7	1317-39-1	30-60%	Xn, N	R-50/53, 22
Xylene	215-535-7	1330-20-7	10-30 %	Xn	R-10, 20/21, 38
Rosin: colophony	232-475-7	8050-09-7	5-10 %	Xi	R-43
Zinkoxide		1314-13-2	5-10%	-	R-50/53

See section 16 for explanations to R-phrases

Composition comments

Key to the symbols: Tx= Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=irritant, IK= Not classified, E= Explosive, O=Oxidizing, Fx= Extremely flammable, F=Highly flammable, N=Dangerous to the environment, M=Mutagenic, A=Sensitizing, K=

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4. FIRST AID MEASURES

General	Show this SDS to the medical attention. In all cases of double, or when symptoms persist, seek medical attention, Never give anything by mouth to an unconscious person.
Inhalation	Move the exposed person to fresh air at once, Perform artificial respiration if breathing has stopped. Keep the affected person warm and at rest. Get prompt medical attention.
Ingestion	Provide rest, Warmth and fresh air, give water or milk, Preferably with active carbon. Don't induce vomiting. If vomiting occurs. The head should be kept low, so that stomach vomit doesn't enter the lungs. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Get medical attention.
Skin	Remove affected person from source of contamination. Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above.
Eyes	Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention. Make sure to remove any contact lenses from the eyes before rinsing.

5. FIRE- FIGHTING MEASURES

Extinguishing media	dry chemicals, sand, dolomite etc. Powder, foam or CO2. Water spray, fog or mist.
Special fire fighting procedures	Avoid water in straight hose stream; will scatter and spread fire. Move container from fire area if it can be done without risk.
Specific hazards	Generates massive smoke during fire. Solvent vapours may form explosive mixtures with air. Vapours are heavier than air and may spread near ground to sources of ignition.
Protective measures in fire	appropriate breathing apparatus may be required.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection	Wear necessary productive equipment, ref. section 8.
Environmental protection	Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers or sewage, inform appropriate in accordance with local regulations. Clean preferably with a detergent; avoid use of solvents.
Spill clean up methods	Provide ventilation and confine spill, Do not allow runoff to sewer. Contact Emergency Response Team in case of major spills. Collect with absorbent, non-combustible material into suitable containers.

7. HANDLING AND STORAGE

Usage precautions	Keep away from heat; sparks and open flame. Wear necessary protective equipment, ref. section 8, Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Read and follow manufacturer's recommendations.
Storage precautions	Keep in cool, dry, ventilated storage and closed containers. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

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Storage Criteria

Flammable liquid storage

8. EXPOSURE CONTROLES/PERSONAL PROTECTION

Ingredient name	CAS No.	Reference	LT Exp 8 Hrs	ST Exp 15 Min
ethylbenzene	100-41-4	WEL.	441 mg/m ³ (SK)	552 mg/m ³ (SK)
butanone	78-93-3	WEL.	600 mg/m ³ (SK)	899 mg/m ³ (SK)
Xylene	1330-20-7	WEL.	220 mg/m ³ (SK)	441 mg/m ³ (SK)
Rosin; colophony	8050-09-7	WEL.	0.05 mg/m ³ (A)	0.15 mg/m ³ (A)
Ingredient comments	AN= Norwegian Exposure Limits.			
Protective equipment				


Process conditions

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Ventilation

All handling to take place in well-ventilated area. Where reasonably practicable this should be achieved by use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, Suitable respiratory protection must be worn.

Respirators

At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used. Wear respiratory protection with combination filter (dust and gas filter) during spraying operations. Gas cartridge (organic substances).

Protective gloves

Chemically resistant gloves (EN 374)
Use protective gloves made of: Polyvinyl alcohol (PVA) Nitrile.

Eye protection

if risk of splashing, wear safety goggles or face shield.

Other Protection

Protective clothing as needed. Provide eyewash, quick drench.

Hygienic work practices

Wash at the end of each work shift and before eating, smoking and using the toilet-wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes wet. Use appropriate hand lotion to prevent defatting and cracking of skin.

Environmental exposure controls

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Fluid	
Colour	Red	
Odour	Solvent	
Boiling point (°C, interval)	137-143	Pressure

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Density (g/cm ³)	1,82 – 1,87	Temperature (°C)
Vapour density (air=1)	>1	
Flash Point (°C)	26	Method
Auto ignition temp. (°C)	>450	
Flammability limit (%)	1-8	

10. STABILITY AND REACTIVITY

Stability	Avoid; Heat, Sparks, flames
Hazardous decomp. products	Toxic gases/ vapours/ fumes of: Carbon monoxide (CO). Carbon dioxide (CO ₂). Nitrous gases (NO _x).

11. TOXICOLOGICAL INFORMATION

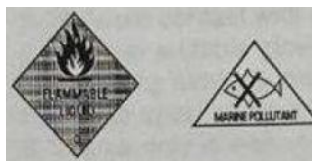
Health hazards general	There are no data available on the preparation itself. The preparation has , been assessed following the conventional method of the dangerous preparations directive and classified for toxicological hazards accordingly. See Section 2 and 15 for details.
Health warnings	Inhalation is the main hazard in industrial use. Absorbs through the skin. Recognized allergen. Solvent vapours are hazardous and may cause nausea, sickness and headaches. Contains zink. Inhalation of smoke (from a fire or by welding of zinc containing material) may cause influenza alike symptoms, zinc-fever. This symptoms will pass off within 2 days. Contact with this chemical may cause: Strong eye irritation, but rarely permanent damage. Skin drying with risk of formation of eczema. Spray mist can irritate airways and lungs. Swallowing concentrated chemical may cause sever internal injury. Prolonged or repeated exposure to this chemical may cause: Brain damage INFORMATION ABOUT EHTYLBENZENE (EB) FROM IARC (international Agency for Research on Cancer): IARC (2000) has classified EB as category 2B carcinogen. The agent is possibly carcinogenic to humans.
Medical considerations	Chronic solvent-induced symptoms may give untypical (neurasthenically produced) impression of disease.

12. ECOLOGICAL INFORMATION

Ecological information	No available environmental data on this product. The product should not be allowed to enter drains or water courses. Environmental data. Xylen (Cas. nr. 1330-20-7): Do not bioaccumulate in aquatic Environment. LC50 96h (fish): 2-11 mg/l Roccus saxatilis, 8,2 mg/l Salmo gairdneri, 13,5 mg/l Lepomis macrichirus, 21,0 mg/l Pimephales promelas. EC50 24h (Daphnia); 1-5mg/l, IC50 72h (algae): 3-5 mg/l selenastrum sp. Degradation: OECD-test 301C: Readily degradable, BOD5/COD: ca.0.60 Bioaccumulation: BCF: 80 fisk (calculated) 21-24 Anguilla japonica, Log Pow: 3,11-3,20. Environmental data: dicopperoxide: Ec50 (Daphnia magna: 48h): 9,8 41.2 ppb. Environmental data tolylfluaniid. LC50 0,25 – 0,50 mg/l 96h cyprinos caprio, EC50 0,57 mg/l 48h daphnia magna, EC50 230 mg/l (OECD 209). BCF 74. Environmental data butanone (Cas.nr 78-93-3): Low toxicity to aquatic organism. Readily degradable. Do not bioaccumulate in aquatic environment fish LC50, 96h: 4600-4900 mg/l, Daphnia EC50, 24h: 8900 mg/l, Algae NOEL, 8d: 4300 mg/l. Log Pow: 1,8-2. BOD20/ThOD: 89%
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13. DISPOSAL CONSIDERATIONS

Disposal methods	Wastes should be delivered as hazardous waste. Do not allow runoff to sewer, waterway or ground.
Waste class	Hazardous waste according to EU-directives. 08 01 11.

14. TRANSPORT INFORMATION
Label for conveyance


Proper shipping name (INTERNATIONAL)	PAINT
Road transport (ADR):	
Un NO. ROD	1263
ADR class	Class 3, Flammable liquids.
ADR packing group	III
RAIL TRANSPORT (RID):	
RID CLASS NO.	3
RID packing group	III
SEA TRANSPORT (IMDG):	
UN no. sea	1263
IMDG class	3
IMDG packing group	III
EmS no.	F-E,S-E
Marine pollutant	yes
Trans5	

15. REGULATORY INFORMATION
Symbol (s)


Contains	dicopper oxide Xylene Rosin; colophony dichloro-N- [(dimethylamino) sulphonyl] fluoro- N- (p-tolyl) methanesulphenamide zinkoxide.
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Risk phrases	R-10 Flammable R-20/21/22 Harmful by inhalation, in contact with skin and if swallowed. R-43 May cause sensitization by skin contact. R-50/53 very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safely phrases	S-25 Avoid contact with eyes. S-37 Wear suitable gloves. S-42 During fumigation/spraying wear suitable respiratory equipment. S-57 use appropriate containment to avoid environmental contamination. S-51 Use only in well-ventilated areas. S-61 Avoid release to the environment. Refer to special instructions/ Safety Data sheets.

16. OTHER INFORMATION

Explanations to R-phrases in section 2	R-11 Highly flammable. R-20 Harmful by inhalation. R-50/53 very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment R-23 Toxic by inhalation. R-48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation . R-43 May cause sensitization by skin contact: R-36/37/38 irritating to eyes, respiratory system and skin. R-36 irritating to eyes, R-66 Repeated exposure may cause skin dryness or cracking. R-67 Vapours may cause drowsiness and dizziness. R-22 Harmful if swallowed . R-10 Flammable. R-20/21 Harmful by inhalation and in contact with skin, R-38 Irritating to skin.
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***Information revised since the previous version of the SDS**

User notes:	The information this safety –data sheet is based on the present state of our knowledge and on current EU and national laws. The product is not to be used for other purposes than those specified under section 1 without first obtaining written handling instruction.it is always the responsibility of the user to take all necessary steps in order to fulfil the demand laid down in the local rules and legislation. The information in this SDS is meant as a description of the safety requirements of our product: it is not to be considered as a guarantee of the products' properties.
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Carboline Norge A/S is a member of "Grant Punkt Norge AS" For more information see; www.grontpunkt.no.

Revision date	2012-05-07
Rev. no./repl. SDS generated	2010-08-20
Date	2012-05-07
Signature	I.V
Signature 2	B.L
Printing date:	2012-05-07