Ready to Use High Traffic Deck & Ramp

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

Product Identifier

Product Name:	Ready to Use High Traffic Deck & Ramp
Product Code:	-

Recommended Use:	Binder for road marking Roller application or brushing Hand-mixing with intimate contact and only PPE available Wide dispersive indoor use resulting in inclusion into or onto a matrix Wide dispersive outdoor use resulting in inclusion into or onto a matrix
Recommended Restrictions:	Applications where liquid monomer is intended to come into contact with skin or nails.

Manufacturer/Importer/Distributor Information

Address:	Alltimes Coatings Limited Unit 17A, Nailsworth Mills Estate, Nailsworth, Gloucestershire, GL6 0BS. UK
Telephone:	01455 272 278
Mobile:	07773 329 424

SECTION 2: Hazards Identification

Classification According to GHS

Physical Hazards:	Flammable Liquids - Category 2
Health Hazards:	Acute Toxicity (Oral) - Category 5 Acute toxicity (Inhalation - Vapor) - Category 5 Skin Corrosion/Irritation - Category 2 Serious Eye Damage/Eye Irritation - Category 2A Skin Sensitizer - Category 1 Specific Target Organ Toxicity: Single Exposure - Category 3 (Respiratory Tract Irritation)
Environmental Hazards:	Acute Hazards to the Aquatic Environment - Category 2 Chronic Hazards to the Aquatic Environment - Category 3

Label Elements

Hazard Symbol(s):	
Signal Word:	Danger
Hazard Statement:	Highly flammable liquid and vapor. May be harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause respiratory irritation. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid breathing dust/ fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/ eye protection/face protection.
Response:	Call a POISON CENTER or doctor/ physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water [or shower]. If skin irritation or rash occurs: Get medical advice/ attention. Specific treatment (see on this label). IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. In case of fire: Use alcohol-resistant foam, carbon dioxide or dry sand to extinguish.
Storage:	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other Hazards:	The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution. Take precautionary measures against static discharges.

SECTION 3: Composition/Information on Ingredients

Mixtures

CHEMICAL IDENTITY	Common Name & Synonyms	CAS Number	Content in Percent*
methyl methacrylate:	methyl 2- methylprop-2- enoate	80-62-6	15,0 - 40,0%
n-butyl acrylate	butyl prop-2- enoate	141-32-2	15,0 - 40,0%
triethyleneglycol dimethacrylate	2-(2-{2-[(2- methylprop-2- enoyl) oxy]eth oxy}ethoxy)et hyl 2-methylprop-2- enoate	109-16-0	1,0 - 5,0%
N,N-bis-(2-hydroxypropyl)-p-toluidine:	1-[(2-hydroxypropyl) (4-methylphenyl)amino]propan-2-ol	38668-48-3	0,1 - 1,0%
Triphenylphosphine:	triphenylphosphane	603-35-0	0,1 - <1,0%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition Comments:	Solution of an acrylic polymer in methacrylic acid esters/acrylic acid esters The exact concentration has been withheld as a trade secret.

SECTION 4: First Aid Measures

Description of First Aid Measures

General Information:	Take off all contaminated clothing immediately. Medical treatment is necessary if symptoms occur which are obviously caused by skin or eye contact with the product or by inhalation of its vapours.
Inhalation:	Move subject to fresh air and keep him calm. If feeling unwell seek medical advice.
Skin Contact:	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Wash contaminated clothing before reuse. If skin irritation occurs consult a physician.
Eye Contact:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of complaints get medical advice.
Ingestion:	Do not induce vomiting. Call a physician immediately. Never give anything by mouth to an unconscious person.
Personal Protection for First-aid Responders:	First Aid responders should pay attention to self-protection and use the recommended protective clothing.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms:	Excessive or prolonged exposure can cause the following: Headache. Confusion. Irritation. Product has dermal defatting effect.
Hazards:	May cause sensitization by skin contact.

Indication of Immediate Medical Attention and Special Treatment Needed

Treatment:	No specific antidote known. Symptomatic treatment.

SECTION 5: Firefighting Measures

General Fire Hazards:	Vapours are heavier than air and can form an explosive mixture with air. Flammable liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint. Remove sources of ignition. Also keep emptied containers away from sources of heat and ignition. Keep out unprotected persons. In case of fire, remove the endangered barrels and bring to a safe place, if this can be done safely. Containers exposed to heat (fire) may build up pressure. Cool by splashing with water. Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Suitable (and Unsuitable) Extinguishing Media

Suitable Extinguishing Media:	Carbon dioxide, foam, sprinkler system with water, dry chemical.
Unsuitable Extinguishing Media:	High volume water jet.
Special Hazards arising from the Substance or Mixture:	May be released in case of fire: carbon monoxide, carbon dioxide, organic products of decomposition. Closed container may rupture if strongly heated. Vapours may form explosive mixtures with air. Combustible air-vapour mixtures are heavier than the air and spread along the floor. Ignition from a considerable distance is possible.

Special Protective Equipment and Precautions for Fire-fighters

Special Fire-fighting Procedures:	Keep away from sources of ignition - No smoking. Vapors are heavier than air. Flammable liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint. Take action to prevent static discharges. In the event of fire, cool the endangered containers with water. Fire fighting must be carried out from a safe distance. Use explosion- proof equipment.
Special Equipment for Fire-fighters:	Wear self-contained breathing apparatus.

SECTION 6: Accidental Release Measures

Personal Precautions:	Assure sufficient ventilation. Use personal protective clothing. Use breathing apparatus if exposed to vapours/dust/mist/aerosol. Keep away from open flames, hot surfaces and sources of ignition. Vapours can form explosive mixtures with air. Keep out unprotected persons. Avoid spark generation.
Accidental Release Measures:	Remove sources of ignition. Stop leak if you can do so without risk. Assure sufficient ventilation
For Emergency Responders:	Use water SPRAY only to cool containers! Do not put water on leaked material.
Methods for Cleaning Up:	Larger quantities: Remove mechanically (by pumping). Use explosion-proof equipment! Smaller quantities and/or residues: Contain with absorbent material (e.g. sand, diatomaceous earth, acid absorbent, universal absorbent or sawdust). Dispose of in accordance with regulations.
Environmental Precautions:	Prevent product from getting into drains/surface water/groundwater.

SECTION 7: Handling and Storage

Handling

Technical Measures:	Provide good ventilation or extraction.
Local/Total Ventilation:	Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour)
Safe Handling Advice:	Do not breathe vapors. Avoid contact with skin and eyes. Wash hands before breaks and immediately after handling the product. Safety shower and eye wash fountain should be available.Keep away from sources of ignition - No smoking. Vapors are heavier than air. Flammable liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint. Take action to prevent static discharges. Use explosion- proof equipment. In the event of fire, cool the endangered containers with water. Fire fighting must be carried out from a safe distance.When using do not eat, drink or smoke. Avoid inhalation, ingestion and contact with skin and eyes. Provide sufficient ventilation and exhaust at the workplace. Provide good room ventilation even at ground level (vapours are heavier than air). Keep container tightly closed. Open drum carefully as content may be under pressure. Keep away from heat/ sparks/open flames/hot surfaces. No smoking. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Wash thoroughly after handling. Supervision in place to check that the risk management measures in place are being used correctly and operation conditions followed. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Controll staff entry to working area. Training for staff on good practice. Recording of any ‘near miss’ situations. Regular cleaning of equipment and work area. Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour).
Contact Avoidance Measures:	See section 8.

Storage

Safe Storage Conditions:	Keep away from open flames, hot surfaces and sources of ignition. Keep away from heat. Protect from the action of light. Keep containers tightly closed in a cool, well-ventilated place. Fill the container by approximately 90 % only as oxygen (air) is required for stabilisation. With large storage containers make sure the oxygen (air) supply is sufficient to ensure stability. Keep at temperature not exceeding 30°C. Keep away from direct sunlight.
Safe Packaging Materials:	No data available.

SECTION 8: Exposure Controls/Personal Protection

Occupational Exposure Limits

CHEMICAL IDENTITY	Type	Exposure Limit Values	Source
methyl methacrylate:	TWA	50 ppm	US. ACGIH Threshold Limit Values, as amended (03 2016)
methyl methacrylate:	STEL	100 ppm	US. ACGIH Threshold Limit Values, as amended (03 2016)
n-butyl acrylate:	TWA	2 ppm	US. ACGIH Threshold Limit Values, as amended (03 2016)

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values:	No biological exposure limits noted for the ingredient(s).

Appropriate Engineering Controls:	For monitoring procedures refer for instance to “Empfohlene Analysenverfahren für Arbeitsplatzmessungen”, Schriftenreihe der Bundesanstalt für Arbeitsschutz and “NIOSH Manual of Analytical Methods”, National Institute for Occupational Safety and Health.
INDIVIDUAL PROTECTION MEASURES	
General Information:	No data available.
Eye/Face Protection:	Tightly fitting goggles
Hand Protection:	Material: butyl rubber gloves Break-through time: 66 min Guideline: EN 374 Additional Information: Gloves should be replaced regularly, especially after extended contact with the product., For each work-place a suitable glove type has to be selected.
Respiratory Protection:	Breathing apparatus in case of high concentrations if the limit values like TLV are exceeded, when vapours or aerosols occur Respirator with filter for organic vapour.
OtherL	On handling of larger quantities: face mask, chemical- resistant boots and apron.
Hygiene Measures:	Take off all contaminated clothing immediately. Store work clothing separately. Follow the usual good standards of occupational hygiene. Clean skin thoroughly after work; apply skin cream.

SECTION 9: Physical and Chemical Properties

Physical State:	Liquid
Form:	Liquid
Colour:	Colourless
Odor:	Ester-like
Odor Thresold:	< 1 ppm
Freezing Point:	-54 °F/-48 °C (estimated) (methyl methacrylate)
Boiling Point:	Approx. 212 °F/100 °C (1.013 hPa) (estimated) (methyl methacrylate)
Flammability:	Highly flammable liquid and vapor.
Explosive Limit - Upper:	(estimated) approx. 12,5 %(V) (methyl methacrylate)
Explosive Limit - Lower:	(estimated) approx. 2,1 %(V) (methyl methacrylate)
Flash Point:	Approx. 50 °F/10 °C (estimated) (methyl methacrylate)
Auto-Ignition Temperature:	Not spontaneously flammable in air at ambient temperature (not pyrophoric)
Decomposition Temperature:	No decomposition if used as directed.
pH:	7 , 1 % in water
Dynamic Viscosity:	Approx. 170 mPa.s (73 °F/23 °C)
Kinematic Viscosity:	Approx. 170 mm2/s (73 °F/23 °C, Calculated)
Flow Time:	Not determined
Solubility in Water:	Approx. 20 g/l (68 °F/20 °C)
Solubility (Other):	Soluble in ethyl acetate
Partition Coefficient (n-octanol/water):	No data available.
Vapour Pressure:	Approx. 40 hPa (68 °F/20 °C)
Relative Density:	< 1 estimated
Density:	Approx. 0,97 g/cm3 (68 °F/20 °C)
Bulk Density:	-
Relative Vapour Density:	> 1 68 °F/20 °C
Auto-Ignition Temperature:	Approx. 806 °F/430 °C (estimated) (methyl methacrylate)

SECTION 10: Stability and Reactivity

Reactivity:	polymerisation
Chemical Stability:	No decomposition if used as directed.
Possibility of Hazardous Reactions:	Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions. Vigorous polymerization is possible when heated /exposed to heat.
Conditions to Avoid:	Heat and ignition sources, aging, contamination, oxygen free atmosphere. Ultraviolet light. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.
Incompatible Materials:	Strong oxidizing agents Reducing agents. Sulphur compounds heavy metal ions Tertiary amines.
Hazardous Decomposition Products:	None when used as directed.

SECTION 11: Toxicological Information

Information on Toxicological Effects

General Information:	Properties of components in summary.
Inhalation:	Relevant route of exposure. Information on effects are given below.
Skin Contact:	Relevant route of exposure. Information on effects are given below.
Eye Contact:	No data available.
Ingestion:	No data available.

Symptoms Related to the Physical, Chemical and Toxicological Characteristics

Inhalation:	Headache. Dizziness.
Skin Contact:	Causes skin irritation. May cause allergic skin reaction.
Eye Contact:	No data available.
Ingestion:	No data available.

Acute Toxicity (List all possible Routes of Exposure)

ORAL	
Product:	Acute toxicity estimate: 2.120 mg/kg (Calculation method)
methyl methacrylate:	LD 50 (Rat): 3.150 mg/kg
n-butyl acrylate:	LD 50 (Rat): > 5.000 mg/kg
triethyleneglycol dimethacrylate:	LD 50 (Rat): > 5.000 mg/kg
N,N-bis-(2-hydroxypropyl)-p-toluidine:	LD 50 (Rat): 25 mg/kg
Triphenylphosphine:	LD 50 (Rat): 13.800 mg/kg

DERMAL	
Product:	Acute toxicity estimate: > 5.000 mg/kg (Calculation method)
methyl methacrylate:	LD 50 (Rabbit): > 5.000 mg/kg
n-butyl acrylate:	LD 50 (Rabbit): > 2.000 mg/kg
triethyleneglycol dimethacrylate:	LD 50 (Mouse): > 2.000 mg/kg
N,N-bis-(2-hydroxypropyl)-p-toluidine:	No data available.
Triphenylphosphine:	Not classified based on available information.

INHALATION	
Product:	Emix: 29,27 mg/l Vapour
methyl methacrylate:	LC 50 (Rat, 4 h): 29,8 mg/l low toxicity after single exposure; Vapour Not toxic after single exposure; Dust and mist, Not applicable
n-butyl acrylate:	LC 50 (Rat, 4 h): 10,3 mg/l Vapour Not toxic after single exposure; Not classified based on available information., Dust and mist
triethyleneglycol dimethacrylate:	Not toxic after single exposure; Vapour Not toxic after single exposure; Dust and mist, Not classified for acute toxicity based on available data.
N,N-bis-(2-hydroxypropyl)-p-toluidine:	Not toxic after single exposure; The substance or mixture has no acute inhalation toxicity, Dust and mist Not toxic after single exposure; The substance or mixture has no acute inhalation toxicity, Vapour
Triphenylphosphine:	LC 50 (Rat, 1 h): > 12,6 mg/l Dust/Mist; Not toxic after single exposure; Not classified based on available information., Dust and mist Not toxic after single exposure; Not classified based on available information., Vapour

REPEATED DOSE TOXICITY	
Product:	No data available.
methyl methacrylate:	NOAEL (Rat, Inhalativ, 2 years): 25 ppm Findings: Damage to mucous membranes in the nose at 400 ppm. NOAEL (Rat, Oral, 2 years): 2000 ppm Findings: no toxic effects
n-butyl acrylate:	No data available.
triethyleneglycol dimethacrylate:	NOAEL (Rat, Oral): 1.000 mg/kg
N,N-bis-(2-hydroxypropyl)-p-toluidine:	No data available.
Triphenylphosphine:	No data available.

SKIN CORROSION/IRRITATION	
Product:	No data available.
methyl methacrylate:	(Rabbit): non-irritant , 4 h. (Human): Irritating.
n-butyl acrylate:	In vivo (Rabbit): Irritating.
triethyleneglycol dimethacrylate:	FDA 1959 Draize, occlusive (Rabbit): Not irritating , 24 h
N,N-bis-(2-hydroxypropyl)-p-toluidine:	OECD 404 (Rabbit): Not irritating
Triphenylphosphine:	EPA OPP 81-5 Not irritating

SKIN CORROSION/IRRITATION	
Product:	No data available.
methyl methacrylate:	Not irritating OECD 405, FDA 1959 Draize , Rabbit:
n-butyl acrylate:	Not irritating OECD Test Guideline 405 , Rabbit:
triethyleneglycol dimethacrylate:	Not irritating OECD Test Guideline 405 , Rabbit:
N,N-bis-(2-hydroxypropyl)-p-toluidine:	Moderately irritating OECD Test Guideline 405 , Rabbit:
Triphenylphosphine:	Not irritating EPA OPP 81-4

RESPIRATORY OR SKIN SENSITIZATION	
Product:	No data available.
methyl methacrylate:	Local Lymph Node Assay (LLNA), LLNA (OECD 429) (Mouse): Skin sensitizer Cases of sensitisation also observed in humans. Not classified for respiratory sensitization.
n-butyl acrylate:	Local Lymph Node Assay (LLNA), OECD 429 (Mouse): Skin sensitizer Not classified for respiratory sensitization
triethyleneglycol dimethacrylate:	Local Lymph Node Assay (LLNA), OECD 429 (Mouse): Skin sensitizer Not classified for respiratory sensitization
N,N-bis-(2-hydroxypropyl)-p-toluidine:	Not classified for respiratory sensitization.
Triphenylphosphine:	in vivo, OECD Test Guideline 429 (Local Lymph Node Assay) (Mouse): May cause sensitization by skin contact. Not classified for respiratory sensitization.

CARCINOGENICITY	
Product:	Contains no ingredient listed as a carcinogen (>0.1%).
methyl methacrylate:	Not classified Non-carcinogenic in inhalation and feeding studies carried out on rats, mice and dogs.
n-butyl acrylate:	Not classified.
triethyleneglycol dimethacrylate:	Not classified.
N,N-bis-(2-hydroxypropyl)-p-toluidine:	Not classified.
Triphenylphosphine:	Not classified.

GERM CELL MUTAGENICITY	
Product:	Contains no ingredient listed as a mutagen (>0.1%).

IN VITRO	
Product:	No data available.
methyl methacrylate:	gene mutation (OECD 471): negative gene mutation (OECD 476): negative , Chinese hamster lung fibroblasts (V79) Micronucleus test (OECD 487): negative , human lymphocytes
n-butyl acrylate:	gene mutation (Ames-test): negative gene mutation (HGPRT test): negative , CHO-cells gene mutation (mouse lymphoma test): positive , mouse lymphoma L5178Y cells The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Chromosomal aberration: negative CHO-cells Based on available data, the classification criteria are not met.
triethyleneglycol dimethacrylate:	gene mutation (OECD 471): negative gene mutation (OECD 476): negative , Chinese hamster lung fibroblasts (V79) Chromosomal aberration (OECD 473): negative CHO-cells
N,N-bis-(2-hydroxypropyl)-p-toluidine:	Bacterial reverse mutation assay (OECD TG 471): negative
Triphenylphosphine:	Bacterial reverse mutation assay (OECD 471): negative

IN VIVO	
Product:	No data available.
methyl methacrylate:	gene mutation (Dominant lethal test) Inhalativ (Mouse): negative.
n-butyl acrylate:	gene mutation (OECD Test Guideline 488) Oral (Mouse): negative The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Chromosomal aberration (OECD Test Guideline 475) Inhalativ (Chinese hamster): negative. Chromosomal aberration (OECD Test Guideline 475) Inhalativ (Rat): negative.
triethyleneglycol dimethacrylate:	Based on available data, the classification criteria are not met.
N,N-bis-(2-hydroxypropyl)-p-toluidine:	Ames test: negative
Triphenylphosphine:	Micronucleus test (OECD Test Guideline 474): negative

REPRODUCTIVE TOXICITY	
Product:	Contains no ingredient listed as toxic to reproduction (>0.1%).
methyl methacrylate:	Not classified No indications of toxic effects were observed in reproduction studies in animals. OECD 414 OECD 416 Oral.
n-butyl acrylate:	Not classified Oral.
triethyleneglycol dimethacrylate:	Not classified Oral. Oral: drinking water
N,N-bis-(2-hydroxypropyl)-p-toluidine:	Not classified.
Triphenylphosphine:	Not classified.

SPECIFIC TARGET ORGAN TOXICITY	SINGLE EXPOSURE
Product:	No data available.
methyl methacrylate:	Inhalation - vapor: Category 3 with respiratory tract irritation.
n-butyl acrylate:	Inhalation - vapor: Category 3 with respiratory tract irritation.
triethyleneglycol dimethacrylate:	Not classified.
N,N-bis-(2-hydroxypropyl)-p-toluidine:	Not classified.
Triphenylphosphine:	Not classified.

SPECIFIC TARGET ORGAN TOXICITY	REPEATED EXPOSURE
Product:	No data available.
methyl methacrylate:	Not classified.
n-butyl acrylate:	Not classified.
triethyleneglycol dimethacrylate:	Not classified.
N,N-bis-(2-hydroxypropyl)-p-toluidine:	Not classified.
Triphenylphosphine:	Not classified.

ASPIRATION HAZARD	
Product:	No data available.
methyl methacrylate:	Not classified.
n-butyl acrylate:	Not classified.
triethyleneglycol dimethacrylate:	Not classified.
N,N-bis-(2-hydroxypropyl)-p-toluidine:	Not classified.
Triphenylphosphine:	Not classified.

Information on Health Hazards

Other Hazards Product:	There are no toxicological data available for the product as such. Avoid contact with the skin and eyes and inhalation of the product vapours.

SECTION 12: Ecological Information

Acute Hazards to the Aquatic Environment

FISH	
Product:	No data available.
methyl methacrylate:	LC 50 (96 h): > 100 mg/l Expert judgement
n-butyl acrylate:	LC 50 (Oncorhynchus mykiss (rainbow trout), 96 h): > 5,2 mg/l
triethyleneglycol dimethacrylate:	LC 50 (Danio rerio (zebra fish), 96 h): 16,4 mg/l
N,N-bis-(2-hydroxypropyl)-p-toluidine:	LC 50 (Danio rerio (zebra fish), 96 h): 17 mg/l
Triphenylphosphine:	No data available.

AQUATIC INVERTEBRATES	
Product:	No data available.
methyl methacrylate:	EC 50 (Daphnia magna (Water flea), 48 h): 69 mg/l
n-butyl acrylate:	EC 50 (Daphnia magna (Water flea), 48 h): 8,2 mg/l
triethyleneglycol dimethacrylate:	No data available.
N,N-bis-(2-hydroxypropyl)-p-toluidine:	EC 50 (Daphnia magna (Water flea), 48 h): 28,8 mg/l
Triphenylphosphine:	No data available.

TOXICITY TO AQUATIC PLANTS	
Product:	No data available.
methyl methacrylate:	EC 50 (Selenastrum capricornutum (green algae), 72 h): > 100 mg/l (OECD 201)
n-butyl acrylate:	EC 50 (Selenastrum capricornutum (green algae), 96 h): 2,65 mg/l (OECD TG 201)
triethyleneglycol dimethacrylate:	EC 50 (Pseudokirchneriella subcapitata (green algae), 72 h): > 100 mg/l (OECD TG 201)
N,N-bis-(2-hydroxypropyl)-p-toluidine:	EC 50 (Desmodesmus subspicatus (green algae), 72 h): 245 mg/l (OECD TG 201)
Triphenylphosphine:	No data available.

TOXICITY TO MICROORGANISMS	
Product:	No data available.
methyl methacrylate:	EC3 (Pseudomonas putida, 16 h): 100 mg/l (cell proliferation inhibition test, Bringmann-Kühn)
n-butyl acrylate:	EC0 (Activated sludge, 3 d): > 150 mg/l
triethyleneglycol dimethacrylate:	No data available.
N,N-bis-(2-hydroxypropyl)-p-toluidine:	EC10 (30 min): > 1.995 mg/l (OECD Test Guideline 209)
Triphenylphosphine:	No data available.

Chronic Hazards to the Aquatic Environment

FISH	
Product:	No data available.
methyl methacrylate:	NOEC (Danio rerio (zebra fish)): 9,4 mg/l (OECD 210)
n-butyl acrylate:	No data available.
triethyleneglycol dimethacrylate:	No data available.
N,N-bis-(2-hydroxypropyl)-p-toluidine:	No data available.
Triphenylphosphine:	No data available.

AQUATIC INVERTEBRATES	
Product:	No data available.
methyl methacrylate:	NOEC (Daphnia magna (Water flea), 21 d): 37 mg/l (OECD 202 part 2)
n-butyl acrylate:	NOEC (Daphnia magna (Water flea), 21 d): 0,136 mg/l (OECD Test Guideline 211)
triethyleneglycol dimethacrylate:	NOEC (Daphnia magna (Water flea), 21 d): 32 mg/l (OECD Test Guideline 211)
N,N-bis-(2-hydroxypropyl)-p-toluidine:	No data available.
Triphenylphosphine:	No data available.

TOXICITY TO AQUATIC PLANTS	
Product:	No data available.
methyl methacrylate:	NOEC (Selenastrum capricornutum (green algae), 72 h): > 110 mg/l (OECD 201)
n-butyl acrylate:	No data available.
triethyleneglycol dimethacrylate:	NOEC (Pseudokirchneriella subcapitata (green algae), 72 h): 18,6 mg/l (OECD TG 201)
N,N-bis-(2-hydroxypropyl)-p-toluidine:	No data available.
Triphenylphosphine:	No data available.

TOXICITY TO MICROORGANISMS	
Product:	No data available.
methyl methacrylate:	EC3 (Pseudomonas putida, 16 h): 100 mg/l (cell proliferation inhibition test, Bringmann-Kühn)
n-butyl acrylate:	EC0 (Activated sludge, 3 d): > 150 mg/l
triethyleneglycol dimethacrylate:	No data available.
N,N-bis-(2-hydroxypropyl)-p-toluidine:	EC10 (30 min): > 1.995 mg/l (OECD Test Guideline 209)
Triphenylphosphine:	No data available.

Persistence and Degradability

BIODEGRADATION	
Product:	(monomer constituent) (analogy), The product is biodegradable.
methyl methacrylate:	94 % (14 d, OECD 301 C), easily biodegradable
n-butyl acrylate:	60 % source: literature, Readily biodegradable > 80 % , Readily biodegradable
triethyleneglycol dimethacrylate:	85 % (28 d), Readily biodegradable
N,N-bis-(2-hydroxypropyl)-p-toluidine:	39 % (28 d, OECD TG 301 B), Inherently biodegradable
Triphenylphosphine:	No data available.

BOD/COD RATIO	
Product:	No data available.
methyl methacrylate:	No data available.
n-butyl acrylate:	No data available.
triethyleneglycol dimethacrylate:	No data available.
N,N-bis-(2-hydroxypropyl)-p-toluidine:	No data available.
Triphenylphosphine:	No data available.

Bioaccumulative Potential

BIOCONCENTRATION FACTOR (BCF)	
Product:	No evidence for hazardous properties.
methyl methacrylate:	Accumulation in organisms is not expected due to the coefficient of distribution of n-octanol in water (log Pow).
n-butyl acrylate:	Accumulation in organisms is not expected due to the coefficient of distribution of n-octanol in water (log Pow).
triethyleneglycol dimethacrylate:	Accumulation in organisms is not expected due to the coefficient of distribution of n-octanol in water (log Pow).
N,N-bis-(2-hydroxypropyl)-p-toluidine:	No data available.
Triphenylphosphine:	No data available.

PARTITION COEFFICIENT	N-OCTANOL / WATER (LOG KOW)
Product:	No data available.
methyl methacrylate:	Log Kow: 1,38 20 °C (Measured)
n-butyl acrylate:	Log Kow: 2,36 Log Kow: 2,38 25 °C
triethyleneglycol dimethacrylate:	Log Kow: 2,3 20 °C (OECD Test Guideline 117)
N,N-bis-(2-hydroxypropyl)-p-toluidine:	Log Kow: 2,1 (OECD Test Guideline 107)
Triphenylphosphine:	No data available.

MOBILITY IN SOIL	
Product:	No specific test data available.
methyl methacrylate:	Binding to the solid soil phase, sediment or clarification sludge is not expected. The substance evaporates gradually into the atmosphere from the surface of the water. If the substance does get into the environment, it tends to remain in the compartment it was discharged into.
n-butyl acrylate	The product evaporates slowly.
triethyleneglycol dimethacrylate:	No data available.
N,N-bis-(2-hydroxypropyl)-p-toluidine:	No data available.
Triphenylphosphine:	No data available.

RESULTS OF PBT & VPVB ASSESSMENT	
Product:	No data available.
methyl methacrylate:	Non-classified vPvB substance, Non-classified PBT substance
n-butyl acrylate	Non-classified vPvB substance, Non-classified PBT substance
triethyleneglycol dimethacrylate:	No data available.
N,N-bis-(2-hydroxypropyl)-p-toluidine:	No data available.
Triphenylphosphine:	Non-classified vPvB substance, Non-classified PBT substance

Other Adverse Effects

Other Hazards Product:	Prevent substance from entering soil, natural bodies of water and sewer systems.

SECTION 13: Disposal Considerations

General Information:	This material and/or its container must be disposed of as hazardous waste.
Disposal Methods:	No data available.
Contaminated Packaging:	Contaminated packaging should ideally be emptied; it can then be recycled after having been decontaminated. Packaging that cannot be cleaned should be disposed of professionally. Uncontaminated packaging may be taken for recycling.

SECTION 14: Transport Information

International Regulations

IATA-DGR	
UN/ID Number:	UN 1866
Proper Shipping Name:	Resin solution stabilized
Class:	3
Packing Group:	II
Labels:	3
Packing Instruction (Cargo Aircraft):	364
Packing Instruction (Passenger Aircraft):	353

IMDG-CODE	
UN Number:	UN 1866
Proper Shipping Name:	RESIN SOLUTION STABILIZED
Class:	3
Packing Group:	II
Labels:	3
EmS Code:	F-E, S-E
Marine Pollutant:	No

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	Not applicable for product as supplied.
Special Precautions for User:	The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15: Regulatory Information

International Regulations

Montreal Protocol:	Not applicable.
Stockholm Convention:	Not applicable.
Rotterdam Convention:	Not applicable.
Kyoto Protocol:	Not applicable.

Inventory Status

Registration, Evaluation and Authorisation of Chemicals (REACH):	Preregistered, registered or exempted.
US TSCA Inventory:	On or in compliance with the inventory.
Canada DSL Inventory List:	On or in compliance with the inventory.
Canada NDSL Inventory List:	On or in compliance with the inventory.
Japan (ENCS) List:	On or in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory.

SECTION 16: Other Information

Issue Date:	25.03.2019
Version:	3.0
Further Information:	The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.
Disclaimer:	This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

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Alltimes Coatings Ltd.
Unit 17A, Nailsworth Mills Estate,
Nailsworth, Gloucestershire,
GL6 0BS. UK
T: 01453 872 850
E: info@alltimescoatings.co.uk
W: www.alltimescoatings.co.uk