



Safety Data Sheet



Revision Date 17-Jan-2018
Version 1.01

SDS 458

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name DURACON® 223

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

Recommended Use Binder

1.3 Details of the supplier of the safety data sheet

Supplier	Alteco Technik GmbH Raiffeisenstrasse 16 D-27239 Twistringen Germany Phone: +49 (0) 4243 92950 Fax: +49 (0) 4243 929589	New Zealand Supplier: Equus Industries Ltd 4 Sheffield Street, Riverlands Estate Blenheim 7274 Phone: +64 3 578 0214 Fax: +64 3 578 0919
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This telephone number is available during office hours only

For further information, please contact: info@alteco-technik.de

1.4 Emergency telephone number

Emergency telephone number Chemtrec: +1 703-527-3887 ex-USA
Chemtrec: 1-800-424-9300 USA

Europe	112
Austria	+43 1 406 43 43
Belgium	Poison center (BE): +32 70 245 245
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
Finland	Poison Information Centre (FI): +358 9 471 977
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Center Berlin (DE): +49 030 30686 790 Poison Center Nord: +49 551 19240 (24h available English / German)
Ireland	National Poisons Information Centre (IE): +353 1 8379964 / + 353 1 8092566
Iceland	+354 543 2222
Italy	Poison Centre, Milan (IT): +39 02 6610 1029
Luxembourg	112
Netherlands	National Poisons Information Centre (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
New Zealand	National Poisons Centre (NZ) 0800 764 766
Norway	Poisons Information (NO): + 47 22 591300
Portugal	Poison Information Centre (PT): +351 21 330 3284
Spain	Poison Information Service (ES): +34 91 562 04 20
Sweden	Poisons Information Center (SV): +46 8 33 12 31
Switzerland	Poison Center: Tel 145; +41 44 251 51 51
United Kingdom	111

2. Hazards identification

2.1 Classification of the substance or mixture

Skin corrosion/irritation	Category 2 - (H315)
Skin sensitisation	Category 1 - (H317)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Chronic aquatic toxicity	Category 3 - (H412)
Flammable liquids	Category 2 - (H225)

2.2 Label elements



Signal Word
Danger

Hazard Statements

H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H335 - May cause respiratory irritation
H412 - Harmful to aquatic life with long lasting effects
H225 - Highly flammable liquid and vapour

Precautionary Statements - EU (§28, 1272/2008)

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P243 - Take action to prevent static discharges
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P273 - Avoid release to the environment

Contains METHYL METHACRYLATE, 2-ETHYLHEXYL ACRYLATE, TRIETHYLENGLYCOL DIMETHACRYLATE

2.3. Other Hazards

No information available

3. Composition/information on ingredients

3.1 Substances

This product is a mixture. Health hazard information is based on its components

3.2 Mixtures

Chemical Name	EC-No	CAS No.	Weight-%	GHS Classification	REACH Registration Number
METHYL METHACRYLATE	201-297-1	80-62-6	25 - 50	STOT SE 3 (H335) Skin Irrit. 2 (H315) Skin Sens. 1 (H317)	01-2119452498-28-XX XX

				Flam Liq. 2 (H225)	
2-ETHYLHEXYL ACRYLATE	203-080-7	103-11-7	10 - 25	Skin Irrit. 2 (H315) Skin Sens. 1 (H317) STOT SE 3 (H335) Aquatic Chronic 3 (H412)	01-2119453158-37-XX XX
Benzoic acid, nonyl ester, branched and linear	-	670241-72-2	10 - 25	Aquatic Chronic 2 (H411)	01-0000018876-55-XX XX
TRIETHYLENGLYCOL DIMETHACRYLATE	203-652-6	109-16-0	1 - 2.5	Skin Sens. 1 (H317)	01-2119969287-21-XX XX

For the full text of the H-Statements mentioned in this Section, see Section 16

4. First Aid Measures

4.1 Description of first aid measures

General advice	Move out of dangerous area. Take off all contaminated clothing immediately.
Inhalation	Move to fresh air. Keep respiratory tract clear. If unconscious place in recovery position and seek medical advice. If not breathing, give artificial respiration. Call a physician if irritation develops or persists.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician if irritation develops or persists.
Eye contact	Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.
Ingestion	Gently wipe or rinse the inside of the mouth with water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
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4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	Treat symptomatically.
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5. Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media

Dry powder, Foam, Carbon dioxide (CO₂), Water mist, Alcohol-resistant foam.

Extinguishing media which shall not be used for safety reasons

High volume water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions. Explosive reaction may occur on heating or burning. Burning produces irritant fumes. Flash back possible over considerable distance.

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Keep containers and surroundings cool with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance

with local regulations.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

Use personal protective equipment. Remove all sources of ignition. Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes and clothing.

Advice for emergency responders

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow material to contaminate ground water system.

6.3 Methods and materials for containment and cleaning up

Methods for Containment

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Methods for cleaning up

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment.

6.4 Reference to other sections

See section 8 for more information.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Provide exhaust ventilation close to floor level. Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing. Open drum carefully as content may be under pressure. Use only in well-ventilated areas. Vapours may form explosive mixtures with air. Keep product and empty container away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge. Do not use sparking tools. Use only explosion-proof equipment. Have fire extinguishers ready before opening the drum.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Keep away from food, drink and animal feedingstuffs. Keep working clothes separately.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions

Store in original container. Never fill containers more than 80 % because aerial oxygen is necessary for stabilising. Store between 5 and 25 °C in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Keep in an area equipped with solvent resistant flooring. Do not store together with oxidizing and self-igniting products.

7.3 Specific end uses

Specific use(s)

No information available

Exposure scenario

No information available.

8. Exposure controls/personal protection

8.1 Control parameters

Exposure Limit Values

Chemical Name	European Union	Austria	Belgium	Denmark	Finland	France
METHYL METHACRYLATE 80-62-6		STEL 100 ppm STEL 420 mg/m ³ TWA: 50 ppm TWA: 210 mg/m ³	TWA: 50 ppm TWA: 208 mg/m ³ STEL: 100 ppm STEL: 416 mg/m ³	TWA: 25 ppm TWA: 102 mg/m ³ Skin	TWA: 10 ppm TWA: 42 mg/m ³ STEL: 50 ppm STEL: 210 mg/m ³	TWA: 50 ppm TWA: 205 mg/m ³ STEL: 100 ppm STEL: 410 mg/m ³
2-ETHYLHEXYL ACRYLATE 103-11-7		Skin STEL 10 ppm STEL 82 mg/m ³ TWA: 10 ppm TWA: 82 mg/m ³ Ceiling 10 ppm Ceiling 82 mg/m ³				
Chemical Name	Germany	Iceland	Ireland	Italy	Luxembourg	The Netherlands
METHYL METHACRYLATE 80-62-6	TWA: 50 ppm TWA: 210 mg/m ³	TWA: 50 ppm S* Ceiling: 100 ppm STEL: 100 ppm	TWA: 50 ppm STEL: 100 ppm	STEL: 100 ppm STEL: 410 mg/m ³ TWA: 50 ppm TWA: 205 mg/m ³	STEL: 100 ppm TWA: 50 ppm	STEL: 410 mg/m ³ TWA: 205 mg/m ³
2-ETHYLHEXYL ACRYLATE 103-11-7	TWA: 5 ppm TWA: 38 mg/m ³					
Chemical Name	Norway	Portugal	Spain	Sweden	Switzerland	The United Kingdom
METHYL METHACRYLATE 80-62-6	TWA: 25 ppm TWA: 100 mg/m ³ Skin STEL: 100 ppm STEL: 400 mg/m ³	STEL: 100 ppm TWA: 50 ppm	STEL: 100 ppm TWA: 50 ppm	LLV: 50 ppm LLV: 200 mg/m ³ S* STV: 150 ppm STV: 600 mg/m ³	STEL: 100 ppm STEL: 420 mg/m ³ TWA: 50 ppm TWA: 210 mg/m ³	STEL: 100 ppm STEL: 416 mg/m ³ TWA: 50 ppm TWA: 208 mg/m ³
2-ETHYLHEXYL ACRYLATE 103-11-7					STEL: 5 ppm STEL: 38 mg/m ³ TWA: 5 ppm TWA: 38 mg/m ³	

TWA: time weighted average
 STEL: Short term exposure limit
 LLV: Exposure Limit Values
 STV: Short Term Value

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

8.2 Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/Face Protection

Tightly fitting safety goggles. Eye wash bottle with pure water.

Hand Protection

Solvent-resistant gloves. Suitable material: butyl-rubber. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Follow the skin protection plan.

Skin and body protection

Follow the skin protection plan. Flame retardant antistatic protective clothing. Remove and wash contaminated clothing before re-use.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Preferably a compressed airline breathing apparatus.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Keep away from food, drink and animal feedingstuffs. Keep working clothes separately.

Environmental exposure controls Prevent product from entering drains. Do not allow material to contaminate ground water system.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	No information available
Colour	Colourless
Odour	acrylic-like
Odour Threshold	0.05 ppm

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
pH		
Melting/freezing point	-48 °C (MMA) / -54 °F	
Boiling point/boiling range	101 °C (MMA) / 214 °F	
Flash Point	12 °C (MMA) / 54 °F	
Evaporation rate	no data available	No information available
Flammability (solid, gas)		No information available
Flammability Limits in Air		
upper flammability limit		No information available
lower flammability limit		No information available
Upper explosion limit	12.5 Vol.% (MMA)	
Lower explosion limit	2.1 Vol.% (MMA)	
Vapour pressure	38.7 mbar (MMA)	(Air = 1.0)
Vapour density		No information available
Specific Gravity		No information available
Water solubility	Insoluble	
Solubility in other solvents		No information available
Partition coefficient	1.38 log POW (MMA)	
Autoignition temperature		No information available
Decomposition temperature		No information available
Viscosity, kinematic	620 - 680 mPa.s (25 °C)	
Viscosity, dynamic		No information available
Explosive properties		No information available
Oxidising Properties		No information available

9.2 Other information

Volatile organic compounds (VOC) content	No information available
Density	1.01 g/cm ³ (25 °C)

10. Stability and Reactivity

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Polymerisation occurs when exposed to white light, ultraviolet light or heat. Polymerisation is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers.

10.4 Conditions to Avoid

Heat, flames and sparks. Exposure to sunlight.

10.5 Incompatible Materials

Avoid radical-forming starting agents, peroxides and reactive metals, Amines, Heavy metal compounds, Oxidizing agents, Reducing agents

10.6 Hazardous Decomposition Products

No hazardous decomposition products are known.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product Information

Inhalation	Irritating to mucous membranes. May cause respiratory irritation.
Eye contact	There are no data available for this product.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Ingestion	There are no data available for this product.

The following values are calculated based on chapter 3.1 of the GHS document

Unknown Acute Toxicity

- < 1 % of the mixture consists of ingredient(s) of unknown toxicity
- < 1 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- < 1 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- < 1 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- < 1 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)
- < 1 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-ETHYLHEXYL ACRYLATE	4435 mg/kg (Rat)	= 7522 mg/kg (Rabbit)	

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitisation	May cause allergic skin reaction. May cause respiratory irritation.
Germ Cell Mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	No information available.
Target Organs	Eyes. Respiratory system. Skin.
Aspiration hazard	No information available.

12. Ecological information

12.1 Toxicity

< 1 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Ecotoxicity effects

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
METHYL METHACRYLATE	EC50: 96 h Pseudokirchneriella subcapitata 170 mg/L	LC50: 96 h Pimephales promelas 243 - 275 mg/L flow-through LC50: 96 h Pimephales promelas 125.5 - 190.7 mg/L static LC50: 96 h Lepomis macrochirus 170 - 206 mg/L flow-through LC50: 96 h Lepomis macrochirus 153.9 - 341.8 mg/L static LC50: 96 h Oncorhynchus mykiss 79 mg/L flow-through LC50: 96 h Oncorhynchus mykiss 79 mg/L static LC50: 96 h Poecilia reticulata 326.4 - 426.9 mg/L static	EC50: 48 h Daphnia magna 69 mg/L
2-ETHYLHEXYL ACRYLATE	EC50: 72 h Desmodesmus subspicatus 44 mg/L EC50: 96 h Desmodesmus subspicatus 47 mg/L		EC50: 48 h Daphnia magna 17.45 mg/L

12.2 Persistence and degradability

Partially biodegradable.

12.3 Bioaccumulative potential

No data are available on the product itself.

Chemical Name	log Pow
METHYL METHACRYLATE	0.7
2-ETHYLHEXYL ACRYLATE	4.64

12.4 Mobility in soil

Mobility in soil

No information available.

Mobility

No data is available on the product itself.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects.

No information available.

13. Disposal Considerations

13.1 Waste treatment methods

Waste from residues / unused products	Dispose of as hazardous waste in compliance with local and national regulations. European Waste Catalogue. 080111 - waste paint and varnish containing organic solvents or other dangerous substances.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not burn, or use a cutting torch on, the empty drum. Waste Code. 150110 - packaging containing residues of or contaminated by dangerous substances.
Other information	European Waste Catalogue.

14. Transport Information

ADR

14.1 UN	1866
14.2 Proper shipping name	UN 1866 - Resin solution
14.3 Hazard class	3
ADR/RID-Labels	3
14.4 Packing Group	II
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None
Tunnel restriction code	D/E
Hazard identification No	33

IMDG

14.1 UN	1866
14.2 Proper shipping name	UN 1866 - Resin solution
14.3 Hazard class	3
14.4 Packing Group	II
14.5 Marine pollutant	No
14.6 Special Provisions	None
EmS	F-E, S-E
14.7 Transport in bulk according to MARPOL 73/78 and the IBC Code	No information available

IATA

14.1 UN	1866
14.2 Proper shipping name	UN 1866 - Resin solution
14.3 Hazard class	3
14.4 Packing Group	II
14.5 Environmental hazard	Not applicable

14.6 Special Provisions None

15. Regulatory information

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

National regulatory information

Germany WGK Classification WGK = 1 (self classification)

Germany GIS Code RMA 10

Denmark - MAL Factor MAL-kode 4-5 Brugsklar 2-5

New Zealand HSNO Surface Coatings and Colourants (Flammable) Group Standard 2017 - HSR 002662

Chemical Name	French RG number	Title
METHYL METHACRYLATE 80-62-6	RG 65, RG 82	-
2-ETHYLHEXYL ACRYLATE 103-11-7	RG 65	-

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

International Inventories

TSCA	Complies
EINECS/ELINCS	-
DSL	-
PICCS	-
ENCS	-
IECSC	-
AICS	-
KECL	-
NZIoC	-

Legend

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

AICS - Australian Inventory of Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

15.2 Chemical Safety Assessment

No information available

16. Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H335 - May cause respiratory irritation

H412 - Harmful to aquatic life with long lasting effects

H411 - Toxic to aquatic life with long lasting effects

H225 - Highly flammable liquid and vapour

Prepared By RPM Belgium
Regulatory Affairs/Product Safety

Revision Date 17-Jan-2018

Revision Note This data sheet contains changes from the previous version in section(s):, 8, 14.

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet