

Fastenal

I G5. `K jbcuLZAB`) - , +7 UbUXU - \$\$`K UVUbU_]`8 fjj YZ? jHW YbYfZCBZB7 &7 C6 +

Date printed 31.08.2015, Revision 28.08.2015

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

1.1 Product identifier

FC+10, Comp. A

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

1.2.1 Relevant uses

Adhesive mortar for fastening to concrete elements A-Component (Resin)

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

Fastenal
2001 Theurer Blvd.
Winona, MN 55987
Phone: (507) 454-5374
www.fastenal.com

1.4 Emergency telephone number

Advisory body

Chemtrec: 1-800-424-9300 (Within Continental USA);
Chemtrec: 703-527-3887 (Outside USA).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin Sens. 1: H317 May cause an allergic skin reaction.
STOT SE 3: H335 May cause respiratory irritation.

2.2 Label elements

The product is required to be labelled in accordance with GHS-Directives.

Hazard pictograms



Signal word

DANGER

Contains:

Ethylene dimethacrylate
Methacrylic acid, monoester with Propan-1,2-diole

Hazard statements

H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

Precautionary statements

P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P405 Store locked up.
P501 Dispose of contents/container to in accordance with local/regional/national/international regulation.

2.3 Other hazards

Human health dangers

Persons already sensitised to methacrylates may develop allergic reactions when using this product.

Environmental hazards

Does not contain any PBT or vPvB substances.

Other hazards

Further hazards were not determined with the current level of knowledge.

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SECTION 3: Composition / Information on ingredients

Product-type:

The product is a mixture.

Range [%]	Substance
10 - <20	Ethylene dimethacrylate
	CAS: 97-90-5
	GHS: STOT SE 3: H335 - Skin Sens. 1: H317
1 - <10	Methacrylic acid, monoester with Propan-1,2-diole
	CAS: 27813-02-1
	GHS: Eye Irrit. 2: H319 - Skin Sens. 1: H317
1 - <5	Quartz (< 10µm)
	CAS: 14808-60-7
	GHS: STOT RE 1: H372
0,1 - <1	1,1'-(p-Tolylimino)dipropan-2-ol
	CAS: 38668-48-3
	GHS: Acute Tox. 2: H300 - Eye Irrit. 2: H319 - Aquatic Chronic 3: H412

Comment on component parts

The quartz in this preparation is not available on foreseeable use.
 Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.
 For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information	Take off contaminated clothing and wash before reuse.
Inhalation	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
Skin contact	In case of contact with skin wash off immediately with soap and water. Consult a doctor if skin irritation persists.
Eye contact	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.
Ingestion	Supply with medical care. Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects
 Allergic reactions

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	Carbon dioxide. Dry powder. Water spray jet.
Extinguishing media that must not be used	Full water jet Foam.

5.2 Special hazards arising from the substance or mixture

In the event of fire the following can be released:
 Carbon monoxide (CO)

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5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.
Use self-contained breathing apparatus.
Fire residues must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Use personal protective equipment.
High risk of slipping due to leakage/spillage of product.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.
In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

6.3 Methods and material for containment and cleaning up

Take up mechanically.
Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder, diatomaceous earth).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.

Take off contaminated clothing and wash before reuse.
Do not eat, drink, smoke or take drugs at work.
Wash hands before breaks and after work.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Prevent penetration into the ground.
Do not store together with food and animal food/diet.
Keep container in a well-ventilated place.
Keep container tightly closed.
Keep in a cool place. Store in a dry place.
Protect from atmospheric moisture and water.
Store in a dark place.
Recommended storage temperature: 5 - 25 °C

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls/personal protection

Ingredients with occupational exposure limits to be monitored (US)

8.1 Control parameters

not applicable

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8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation.
Eye protection	safety glasses
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. Nitrile rubber, >480 min (EN 374).
Skin protection	Protective clothing. Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	If ventilation is insufficient, wear respiratory protection. Short term: filter apparatus, combination filter A-P2.
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	pasty
Color	light beige
Odor	characteristic
Odour threshold	not determined
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not determined
Flash point [°C]	not applicable
Flammability [°C]	not determined
Lower explosion limit	not determined
Upper explosion limit	not determined
Oxidizing properties	not determined
Vapour pressure/gas pressure [kPa]	not determined
Density [g/ml]	1,52 - 1,68 (23°C / 73,4°F)
Bulk density [kg/m³]	not applicable
Solubility in water	insoluble
Partition coefficient [n-octanol/water]	not determined
Viscosity	not determined
Relative vapour density determined in air	not determined
Evaporation speed	not determined
Melting point [°C]	not determined
Autoignition temperature [°C]	not determined
Decomposition temperature [°C]	not determined

9.2 Other information No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

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10.2 Chemical stability

The product is stable under standard conditions.

10.3 Possibility of hazardous reactions

Reactions with oxidizing agents.

10.4 Conditions to avoid

See SECTION 7.2.

10.5 Incompatible materials

Strong oxidizing agent.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product	
ATE-mix, oral, Rat: 2000 - 5000 mg/kg.	

Range [%]	Substance
10 - <20	Ethylene dimethacrylate, CAS: 97-90-5 LD50, oral, Rat: 3300 mg/kg (RTECS).
0,1 - <1	1,1'-(p-Tolylimino)dipropan-2-ol, CAS: 38668-48-3 LD50, oral, Rat: 27,5 mg/kg.
1 - <10	Methacrylic acid, monoester with Propan-1,2-diole, CAS: 27813-02-1 LD50, dermal, Rabbit: > 5000 mg/kg. LD50, oral, Rat: > 2000 mg/kg OECD 401.

Serious eye damage/irritation	Toxicological data of complete product are not available. No classification. Calculation method
Skin corrosion/irritation	Does not contain any relevant substances fulfilling the classification criteria.
Respiratory or skin sensitisation	Toxicological data of complete product are not available. May cause an allergic skin reaction. Calculation method
Specific target organ toxicity — single exposure	Toxicological data of complete product are not available. May cause respiratory irritation. Calculation method
Specific target organ toxicity — repeated exposure	Toxicological data of complete product are not available. Based on the information available, the classification criteria have not been fulfilled.
Mutagenicity	Does not contain any relevant substances fulfilling the classification criteria.
Reproduction toxicity	Does not contain any relevant substances fulfilling the classification criteria.
Carcinogenicity	Does not contain any relevant substances fulfilling the classification criteria.
Aspiration hazard	Does not contain any relevant substances fulfilling the classification criteria.
General remarks	

The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

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SECTION 12: Ecological information

12.1 Toxicity

Range [%]	Substance
10 - <20	Ethylene dimethacrylate, CAS: 97-90-5
	LC50, (96h), Danio rerio: 15,95 mg/l (OECD 203). EC50, (3h), Pseudomonas putida: 570 mg/l (OECD 209).
0,1 - <1	1,1'-(p-Tolylimino)dipropan-2-ol, CAS: 38668-48-3
	LC50, (96h), fish: 17 mg/l. EC50, (48h), Daphnia magna: 28,8 mg/l.
1 - <10	Methacrylic acid, monoester with Propan-1,2-diole, CAS: 27813-02-1
	LC50, (48h), Leuciscus idus: 493 mg/l (DIN 38412). EC50, (72h), Pseudokirchneriella subcapitata: 97,2 mg/l (OECD 201). EC50, (48h), Daphnia magna: 380 mg/l (OECD 202).

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
Biological degradability	not determined

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Other adverse effects

Ecological data of complete product are not available.
 The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.
 Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

Product	Coordinate disposal with the disposal contractor/authorities if necessary.
Contaminated packaging	Uncontaminated packaging may be taken for recycling. Packaging that cannot be cleaned should be disposed of as for product.
RCRA Hazard Class (40CFR 261)	Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities.



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SECTION 14: Transport

14.1 UN number

See SECTION 14.2 in accordance with UN shipping name

14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

14.3 Transport hazard class(es)

See SECTION 14.2 in accordance with UN shipping name

14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

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

not applicable

SECTION 15: Regulatory information

US Regulations

National regulations	29 CFR 1910.1200, ANSI Z400.1-2010, OSHA-PEL, ACGIH-TLV, NTP, IARC, SARA Title III, NFPA, TSCA, California - Prop. 65
- SARA, 302	This product does not contain any ingredients regulated under this list.
- SARA, 311	This product does not contain any ingredients regulated under this list.
- SARA, 313	This product does not contain any ingredients regulated under this list.
- CA Proposition 65	No components require labeling under California Proposition 65.
- TSCA	All chemical substances in this material are included on or exempted from listing on the TSCA Inventory.
- FDA	not applicable
American Conference of Governmental Industrial Hygienists - ACGIH	ACGIH: yes - contains crystalline silica
International Agency for Research on Cancer IARC	IARC: yes - contains crystalline silica.
National Toxicology Program - NTP	This product is named NTP - National Toxicology Program (contains crystalline silica).
HAP-VOC	0 %
Transport-regulations	DOT-Classification, ADR (2013); IMDG-Code (2013, 36. Amdt.); IATA-DGR (2013).
Other Right to Know Laws	

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SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

- H412 Harmful to aquatic life with long lasting effects.
- H300 Fatal if swallowed.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.
- H335 May cause respiratory irritation.

16.2 Abbreviations and acronyms:

- ACGIH = American Conference of Governmental Industrial Hygienists;
- ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route;
- RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses;
- ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure;
- CAS = Chemical Abstracts Service;
- CERCLA = Comprehensive Environmental Response, Compensation and Liability Act;
- CFR = Code of Federal Regulations;
- CPR = Controlled Products Regulations;
- DMEL = Derived Minimum Effect Level;
- DNEL = Derived No Effect Level;
- DOT = Department of Transportation;
- EC50 = Median effective concentration;
- EPA = Environmental Protection Agency;
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals;
- IATA = International Air Transport Association;
- IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk;
- IC50 = Inhibition concentration, 50%;
- IMDG = International Maritime Code for Dangerous Goods;
- IARC = International Agency of Research on Cancer;
- IATA = International Air Transport Association;
- TSCA = Toxic Substance Control Act;
- HMIS = Hazardous Materials Identification System;
- NFPA = National Fire Protection Association;
- NIOSH = National Institute for Occupational Safety and Health;
- OSHA = Occupational Safety and Health Administration;
- LC50 = Lethal concentration, 50%;
- LD50 = Median lethal dose, 50%;
- MARPOL = International Convention for the Prevention of Marine Pollution from Ships;
- PBT = Persistent, Bioaccumulative and Toxic substance;
- PNEC = Predicted No-Effect Concentration;
- REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals;
- SARA = Superfund Amendments and Reauthorization Act;
- TLV@TWA = Threshold limit value – time-weighted average;
- TLV@STEL = Threshold limit value – short-time exposure limit;
- VOC = Volatile Organic Compounds;
- vPvB = very Persistent and very Bioaccumulative;

16.3 Other information

Classification procedure

Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)
STOT SE 3: H335 May cause respiratory irritation. (Calculation method)



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Modified position

- SECTION 2 been added: P271 Use only outdoors or in a well-ventilated area.
- SECTION 2 deleted: P261 Avoid breathing vapours.
- SECTION 2 been added: The product is required to be labelled in accordance with GHS/CLP-Directives.
- SECTION 2 deleted: The product is classified as hazardous in accordance to OSHA Standard 29 CFR 1910.1200 (HCS 2012)
- SECTION 2 been added: P405 Store locked up.
- SECTION 8 been added: safety glasses
- SECTION 8 deleted: Tightly fitting goggles.
- SECTION 11 deleted: There is no evidence of any reproductive toxicity effects.
- SECTION 11 been added: No classification.
- SECTION 11 been added: Calculation method
- SECTION 11 been added: Does not contain any relevant substances fulfilling the classification criteria.
- SECTION 11 deleted: Sensitizing.
- SECTION 11 been added: May cause an allergic skin reaction.
- SECTION 11 been added: May cause respiratory irritation.
- SECTION 11 deleted: There is no evidence of any mutagenic effects.
- SECTION 11 deleted: There is no evidence of any carcinogenic effects.
- SECTION 11 deleted: The product was classified on the basis of the calculation procedure of the preparation directive.
- SECTION 11 been added: The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.
- SECTION 11 been added: Based on the information available, the classification criteria have not been fulfilled.
- SECTION 12 deleted: No classification on the basis of the calculation procedure of the preparation directive.

16.4 Ratings

HMIS Ratings

HEALTH	2	2 - Moderate Hazard
FLAMMABILITY	2	2 - Moderate Hazard
REACTIVITY	1	1 - Slight Hazard
PERSONAL PROTECTION	X	X - Personal protection rating to be supplied by user depending on use conditions

NFPA Ratings

2
2 1
-

TOP, FLAMMABILITY: 2 - Moderate Hazard
 LEFT, HEALTH: 2 - Moderate Hazard RIGHT, REACTIVITY: 1 - Slight Hazard
 BOTTOM, SPECIAL NOTICE: -

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

1.1 Product identifier

FC+10, Comp. B

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

1.2.1 Relevant uses

Adhesive mortar for fastening to concrete elements B-Component (Hardener)

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company Fastenal
2001 Theurer Blvd.
Winona, MN 55987
Phone: (507) 454-5374
www.fastenal.com

1.4 Emergency telephone number

Advisory body Chemtrec: 1-800-424-9300 (Within Continental USA);
Chemtrec: 703-527-3887 (Outside USA).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin Sens. 1: H317 May cause an allergic skin reaction.
Eye Irrit. 2: H319 Causes serious eye irritation.

2.2 Label elements

The product is required to be labelled in accordance with GHS-Directives.

Hazard pictograms



Signal word

DANGER

Contains:

Dibenzoyl peroxide

Hazard statements

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary statements

P261 Avoid breathing vapours.
P280 Wear protective gloves/eye protection/face protection.
P363 Wash contaminated clothing before reuse.
P501 Dispose of contents/container to in accordance with local/regional/national/international regulation.

2.3 Other hazards

Environmental hazards

Does not contain any PBT or vPvB substances.

Other hazards

Further hazards were not determined with the current level of knowledge.

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SECTION 3: Composition / Information on ingredients

Product-type:

The product is a mixture.

Range [%]	Substance
1 - <20	Dibenzoyl peroxide
	CAS: 94-36-0
	GHS: Org. Perox. B: H241 - Eye Irrit. 2: H319 - Skin Sens. 1: H317 - Aquatic Acute 1: H400, M = 10
1 - <5	Reaction mass of Diethylene glycole dibenzoate, Dipropylene glycole dibenzoate and Triethylene glycol dibenzoate
1 - <5	2-Ethylhexyl benzoate
	CAS: 5444-75-7
	GHS: Aquatic Chronic 4: H413
1 - <5	Quartz (< 10µm)
	CAS: 14808-60-7
	GHS: STOT RE 1: H372

Comment on component parts

The quartz in this preparation is not available on foreseeable use.
 Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.
 For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information	Take off contaminated clothing and wash before reuse.
Inhalation	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
Skin contact	In case of contact with skin wash off immediately with soap and water. Consult a doctor if skin irritation persists.
Eye contact	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.
Ingestion	Supply with medical care. Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions
 Irritant effects

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	Carbon dioxide. Dry powder. Water spray jet.
Extinguishing media that must not be used	Full water jet Foam.

5.2 Special hazards arising from the substance or mixture

In the event of fire the following can be released:
 Carbon monoxide (CO)

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5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.
Use self-contained breathing apparatus.
Fire residues must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Use personal protective equipment.
High risk of slipping due to leakage/spillage of product.
Keep away from all sources of ignition.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.
In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

6.3 Methods and material for containment and cleaning up

Take up mechanically.
Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder, diatomaceous earth).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Keep away from all sources of ignition - Refrain from smoking.
Take off contaminated clothing and wash before reuse.
Do not eat, drink, smoke or take drugs at work.
Wash hands before breaks and after work.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Prevent penetration into the ground.
Do not store together with food and animal food/diet.
Keep container in a well-ventilated place.
Keep container tightly closed.
Keep in a cool place. Store in a dry place.
Store in a dark place.
Protect from atmospheric moisture and water.
Recommended storage temperature: 5 °C - +25 °C

7.3 Specific end use(s)

See product use, SECTION 1.2

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (US)

Range [%]	Substance
1 - <20	Dibenzoyl peroxide
	CAS: 94-36-0
	Long-term exposure: 5 mg/m³, OSHA, NIOSH

DNEL

Range [%]	Substance
1 - <20	Dibenzoyl peroxide, CAS: 94-36-0
	Industrial, dermal, Long-term - systemic effects: 6,6 mg/kg bw/d.
	Industrial, inhalative, Long-term - systemic effects: 11,75 mg/m³.
	general population, oral, Long-term - systemic effects: 1,65 mg/kg bw/d.
	general population, dermal, Long-term - systemic effects: 3,3 mg/kg bw/d.
	general population, inhalative, Long-term - systemic effects: 2,9 mg/m³.

PNEC

Range [%]	Substance
1 - <20	Dibenzoyl peroxide, CAS: 94-36-0
	oral (food), 6,67 mg/kg dw.
	soil, 0,0758 mg/kg dw.
	sediment (freshwater), 0,338 mg/kg dw.
	sewage treatment plants (STP), 0,35 mg/l.
	freshwater, 0,000602 mg/l.
	seawater, 0,0000602 mg/l.

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation.
Eye protection	Tightly fitting goggles.
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. In splash contact Nitrile rubber, >120 min (EN 374). In full contact: Butyl rubber, >480 min (EN 374).
Skin protection	Protective clothing. Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	If ventilation is insufficient, wear respiratory protection. Short term: filter apparatus, combination filter A-P2.
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

Fastenal

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	pasty
Color	black
Odor	characteristic
Odour threshold	not determined
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not determined
Flash point [°C]	116
Flammability [°C]	not determined
Lower explosion limit	not determined
Upper explosion limit	not determined
Oxidizing properties	not determined
Vapour pressure/gas pressure [kPa]	not determined
Density [g/ml]	not determined
Bulk density [kg/m³]	not applicable
Solubility in water	insoluble
Partition coefficient [n-octanol/water]	not determined
Viscosity	not determined
Relative vapour density determined in air	not determined
Evaporation speed	not determined
Melting point [°C]	not determined
Autoignition temperature [°C]	not determined
Decomposition temperature [°C]	not determined

9.2 Other information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

See SECTION 10.3.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with oxidizing agents.

10.4 Conditions to avoid

Strong heating.
See SECTION 7.2.

10.5 Incompatible materials

Strong oxidizing agent.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Range [%]	Substance
1 - <5	2-Ethylhexyl benzoate, CAS: 5444-75-7 LD50, dermal, Rabbit: >5000 mg/kg bw. LD50, oral, Rat: >2000 mg/kg bw.
1 - <20	Dibenzoyl peroxide, CAS: 94-36-0 LD50, oral, Rat: >5000 mg/kg.

Serious eye damage/irritation	not determined
Skin corrosion/irritation	not determined
Respiratory or skin sensitisation	not determined
Specific target organ toxicity — single exposure	not determined
Specific target organ toxicity — repeated exposure	not determined
Mutagenicity	There is no evidence of any mutagenic effects.
Reproduction toxicity	There is no evidence of any reproductive toxicity effects.
Carcinogenicity	There is no evidence of any carcinogenic effects.
General remarks	

Toxicological data of complete product are not available.
 The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

SECTION 12: Ecological information

12.1 Toxicity

Product
EC50, (72h), Pseudokirchneriella subcapitata: > 1 mg/l.
EC50, (48h), Daphnia magna: > 1 mg/l.

Range [%]	Substance
1 - <20	Dibenzoyl peroxide, CAS: 94-36-0 LC50, (96h), Oncorhynchus mykiss: 0,0602 mg/l (OECD 203). LC50, (96h), fish: 1,7-2,4 mg/l (OECD 203). EC50, (48h), Daphnia magna: 2,91 mg/l (OECD 202). EC50, (48h), Daphnia magna: 0,11 mg/l (OECD 202). EC50, (72h), Pseudokirchneriella subcapitata: 0,0711 mg/l (OECD 201). NOEC, (48h), Daphnia magna: 1,99 mg/l.

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
Biological degradability	not determined

12.3 Bioaccumulative potential

No information available.

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12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Other adverse effects

No classification due to toxicological investigations.
The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.
Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

Product	Coordinate disposal with the disposal contractor/authorities if necessary.
Contaminated packaging	Uncontaminated packaging may be taken for recycling. Packaging that cannot be cleaned should be disposed of as for product.
RCRA Hazard Class (40CFR 261)	Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities.

SECTION 14: Transport

14.1 UN number

See SECTION 14.2 in accordance with UN shipping name

14.2 UN proper shipping name

Transport by land according to ADR/RID	NO DANGEROUS GOODS
Inland navigation (ADN)	NO DANGEROUS GOODS
Marine transport in accordance with IMDG	NOT CLASSIFIED AS "DANGEROUS GOODS"
Air transport in accordance with IATA	NOT CLASSIFIED AS "DANGEROUS GOODS"
DOT Road Shipment Information (49 CFR)	NOT CLASSIFIED AS "DANGEROUS GOODS"

14.3 Transport hazard class(es)

See SECTION 14.2 in accordance with UN shipping name

14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name



Fastenal

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14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

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

not applicable

SECTION 15: Regulatory information

US Regulations

National regulations

	29 CFR 1910.1200, HCS 2012, ANSI Z400.1-2010, OSHA-PEL, ACGIH-TLV, NTP, IARC, SARA Title III, NFPA, TSCA, California - Prop. 65
- SARA, 302	This product does not contain any ingredients regulated under this list.
- SARA, 311	This product does not contain any ingredients regulated under this list.
- SARA, 313	This product contain one ingredient regulated under this list. (CAS 94-36-0)
- CA Proposition 65	No components require labeling under California Proposition 65.
- TSCA	All chemical substances in this material are included on or exempted from listing on the TSCA Inventory.
- FDA	not applicable
American Conference of Governmental Industrial Hygienists - ACGIH	A2 - Suspected Human Carcinogen (CAS 14808-60-7) A4: Not classifiable as a human carcinogen. (CAS 94-36-0)
International Agency for Research on Cancer IARC	IARC: yes - contains crystalline silica. IARC: Gruppe 3: Not classifiable as to its carcinogenicity to humans. (CAS 94-36-0)
National Toxicology Program - NTP HAP-VOC	This product is named NTP - National Toxicology Program (contains crystalline silica). 0 %
Transport-regulations	DOT-Classification, ADR (2013); IMDG-Code (2013, 36. Amdt.); IATA-DGR (2013).
Other Right to Know Laws	

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

- H372 Causes damage to organs through prolonged or repeated exposure.
- H413 May cause long lasting harmful effects to aquatic life.
- H400 Very toxic to aquatic life.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H241 Heating may cause a fire or explosion.

16.2 Ratings

HMIS Ratings

HEALTH	2	2 - Moderate Hazard
FLAMMABILITY	2	2 - Moderate Hazard
REACTIVITY	1	1 - Slight Hazard
PERSONAL PROTECTION	X	X - Personal protection rating to be supplied by user depending on use conditions

NFPA Ratings

2				TOP, FLAMMABILITY: 2 - Moderate Hazard
2	1			LEFT, HEALTH: 2 - Moderate Hazard RIGHT, REACTIVITY: 1 - Slight Hazard
-				BOTTOM, SPECIAL NOTICE: -

Fastenal

I G5 . `K jbcblZAB`) - , +7 UbUXU - \$\$`K UVUbU_]`8 fjj YZ? jHW YbYfZCBZB7 &7 C6 +

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16.3 Abbreviations and acronyms:

ACGIH = American Conference of Governmental Industrial Hygienists;
ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route;
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses;
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure;
CAS = Chemical Abstracts Service;
CERCLA = Comprehensive Environmental Response, Compensation and Liability Act;
CFR = Code of Federal Regulations;
CPR = Controlled Products Regulations;
DMEL = Derived Minimum Effect Level;
DNEL = Derived No Effect Level;
DOT = Department of Transportation;
EC50 = Median effective concentration;
EPA = Environmental Protection Agency;
GHS = Globally Harmonized System of Classification and Labelling of Chemicals;
IATA = International Air Transport Association;
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk;
IC50 = Inhibition concentration, 50%;
IMDG = International Maritime Code for Dangerous Goods;
IARC = International Agency of Research on Cancer;
IATA = International Air Transport Association;
TSCA = Toxic Substance Control Act;
HMIS = Hazardous Materials Identification System;
NFPA = National Fire Protection Association;
NIOSH = National Institute for Occupational Safety and Health;
OSHA = Occupational Safety and Health Administration;
LC50 = Lethal concentration, 50%;
LD50 = Median lethal dose, 50%;
MARPOL = International Convention for the Prevention of Marine Pollution from Ships;
PBT = Persistent, Bioaccumulative and Toxic substance;
PNEC = Predicted No-Effect Concentration;
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals;
SARA = Superfund Amendments and Reauthorization Act;
TLV@TWA = Threshold limit value – time-weighted average;
TLV@STEL = Threshold limit value – short-time exposure limit;
VOC = Volatile Organic Compounds;
vPvB = very Persistent and very Bioaccumulative;

16.4 Other information

Classification procedure

Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)
Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)

Modified position

SECTION 2 been added: R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
SECTION 2 been added: Dangerous for the environment
SECTION 6 been added: In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.
SECTION 11 been added: Toxicological data of complete product are not available.
SECTION 11 deleted: Sensitizing.
SECTION 11 deleted: Slight irritant effect - does not require labelling.
SECTION 16 been added: Calculation method