



SDS A80

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A80

Version 1.1

MSDS Number: H53686

Revision Date: 19.01.2015

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

1.1 Product identifier

Trade name : A80

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

Use of the Sub-
stance/Mixture : Bodywork repair putty.

Recommended restrictions
on use : For use in industrial installations or professional treatment
only.

1.3 Details of the supplier of the safety data sheet

Company : Roberlo s.a.
Ctra. Nacional II, Km. 706,5
17457 Riudellots de la Selva
Spain

Telephone : +34972478060

Telefax : +34972477394

E-mail address of person
responsible for the SDS : msds@roberlo.com

1.4 Emergency telephone number

+34 972 478060 (8:00-12:45 / 14:15-17:30 h) ROBERLO (Spain) (GMT + 1:00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 2 H225: Highly flammable liquid and vapour.

Reproductive toxicity, Category 2 H361d: Suspected of damaging the unborn child.

Acute toxicity, Category 4 H332: Harmful if inhaled.

Specific target organ toxicity - repeated
exposure, Category 1, Auditory system H372: Causes damage to organs through pro-
longed or repeated exposure if inhaled.

Skin irritation, Category 2 H315: Causes skin irritation.

Eye irritation, Category 2 H319: Causes serious eye irritation.

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Classification (67/548/EEC, 1999/45/EC)

Highly flammable	R11: Highly flammable.
Harmful	R20: Harmful by inhalation. R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.
Toxic to Reproduction Category 3	R63: Possible risk of harm to the unborn child.
Irritant	R36/38: Irritating to eyes and skin.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements :

H225	Highly flammable liquid and vapour.
H361d	Suspected of damaging the unborn child.
H332	Harmful if inhaled.
H372	Causes damage to organs (Auditory system) through prolonged or repeated exposure.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Precautionary statements :

Prevention:	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P260	Do not breathe vapours.
Response:	
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Storage:	
P403	Store in a well-ventilated place.
Disposal:	
P501	Dispose of contents/ container to an approved waste disposal plant.



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Hazardous components which must be listed on the label:
styrene

Additional Labelling:

EUH208 May produce an allergic reaction.

Contains: cobalt bis(2-ethylhexanoate)

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
styrene	100-42-5 202-851-5 01- 2119457861-32	R10 Repr.Cat.3; R63 Xn; R20-R48/20 Xi; R36/38	Flam. Liq.3; H226 Acute Tox.4; H332 Skin Irrit.2; H315 Eye Irrit.2; H319 Repr.2; H361d STOT RE1; H372	>= 20 - < 25
ethyl acetate	141-78-6 205-500-4 01- 2119475103-46	F; R11 Xi; R36 R66 R67	Flam. Liq.2; H225 Eye Irrit.2; H319 STOT SE3; H336	>= 5 - < 10
cobalt bis(2-ethylhexanoate)	136-52-7 205-250-6 01- 2119524678-29	R43 N; R50/53 Repr.Cat.3; R62	Eye Irrit.2; H319 Skin Sens.1A; H317 Repr.2; H361f Aquatic Acute1; H400 Aquatic Chronic3; H412	>= 0.1 - < 0.25
hydroquinone	123-31-9 204-617-8	Carc.Cat.3; R40 Mut.Cat.3; R68 Xn; R22 Xi; R41 R43 N; R50	Acute Tox.4; H302 Eye Dam.1; H318 Skin Sens.1; H317 Muta.2; H341 Carc.2; H351 Aquatic Acute1; H400	< 0.02

For explanation of abbreviations see section 16.



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SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.

- If inhaled : Move to fresh air.
Consult a physician after significant exposure.

- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.

- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Inhalation may provoke the following symptoms:
Headache
Dizziness
Fatigue
Weakness
Skin contact may provoke the following symptoms:
Redness
Ingestion may provoke the following symptoms:
Abdominal pain
Nausea
Vomiting
Diarrhoea

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : No information available.



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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not use a solid water stream as it may scatter and spread fire.

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Use water spray to cool unopened containers.
For safety reasons in case of fire, cans should be stored separately in closed containments.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect 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).



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6.4 Reference to other sections

For contact information in case of emergency, see section 1. For information on safe handling, see section 7. For exposure controls and personal protection measures, see section 8. For subsequent waste disposal, follow the recommendations in section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Avoid exceeding of the given occupational exposure limits (see section 8).
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Container may be opened only under exhaust ventilation hood.
- Advice on protection against fire and explosion : Avoid formation of aerosol. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : No smoking. Store in cool place. Keep in a well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.
- Storage period : 12 Months
- Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

- Specific use(s) : For the use of this product do not exist particular recommendations apart from that already indicated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

- Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:**
styrene : End Use: Workers



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ethyl acetate	: Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 85 mg/m ³ : End Use: Workers
cobalt bis(2-ethylhexanoate)	: Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 734 mg/m ³ : End Use: Workers
1,4-dihydroxybenzene	: Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 0.2351 mg/m ³ : End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 1 mg/m ³ End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 7.00 mg/m ³

8.2 Exposure controls

Personal protective equipment

Eye protection	: Eye wash bottle with pure water Tightly fitting safety goggles
Hand protection	
Remarks	: Solvent-resistant gloves The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Before removing gloves clean them with soap and water.
Skin and body protection	: impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory protection	: In the case of vapour formation use a respirator with an approved filter.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: viscous liquid: less than 3% of the clear solvent layer separates in the solvent separation test
Colour	: light grey
Odour	: characteristic
pH	: not applicable



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Melting point/range	: not applicable
Boiling point/boiling range	: 77.1 °C (7.6 hPa)
Flash point	: 9 °C Method: ISO 1523, closed cup Setaflash
Upper explosion limit	: 8.1 %(V) (25 °C)
Lower explosion limit	: 1.5 %(V) (25 °C)
Vapour pressure	: 29.7 hPa (20 °C) 158 hPa (50 °C)
Density	: 1.50 g/cm ³ (20 °C) Method: ISO 2811-1
Solubility(ies) Water solubility	: immiscible
Auto-ignition temperature	: 468 °C
Viscosity Viscosity, dynamic	: 150,000 mPa.s (20 °C) Method: ISO 2555

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if used as directed.

Vapours may form explosive mixture with air.



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10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Incompatible with oxidizing agents.
Acids
Bases
Amines
polymerisation initiators

10.6 Hazardous decomposition products

Hazardous decomposition products : Carbon monoxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 10 - 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 2,000 mg/kg
Method: Calculation method

Components:

styrene:

Acute oral toxicity : LD50 Oral (rat): 2,650 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (rat): 11.8 mg/l
Exposure time: 4 h
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (rabbit): > 2,000 mg/kg
Method: OECD Test Guideline 402

ethyl acetate:

Acute oral toxicity : LD50 Oral (rat): 5,620 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (rat): 44 mg/l



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Exposure time: 4 h
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (rabbit): 18,000 mg/kg
Method: OECD Test Guideline 402

cobalt bis(2-ethylhexanoate):

Acute oral toxicity : LD50 Oral (rat): 3,129 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (rat): > 2,000 mg/kg
Method: OECD Test Guideline 402

hydroquinone:

Acute oral toxicity : LD50 Oral (rat): 320 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (rabbit): > 2,000 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Product:

Remarks: May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Product:

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

Respiratory or skin sensitisation

Product:

Remarks: Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Product:

Germ cell mutagenicity- Assessment : Based on available data, the classification criteria are not met.

Carcinogenicity

Product:

Carcinogenicity - Assessment : Based on available data, the classification criteria are not met.

Reproductive toxicity

Product:



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Reproductive toxicity - Assessment : Suspected of damaging the unborn child.

STOT - single exposure

Product:

Remarks: Based on available data, the classification criteria are not met.

STOT - repeated exposure

Product:

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1.

Aspiration toxicity

Product:

Based on available data, the classification criteria are not met.

Further information

Product:

Remarks: Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:

styrene:

Toxicity to fish : LC50 (Fish): 9 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia): 4.7 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 1.4 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

ethyl acetate:

Toxicity to fish : LC50 (Fish): 212 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia): 164 mg/l



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aquatic invertebrates Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

cobalt bis(2-ethylhexanoate):

Toxicity to fish : LC50 (Fish): 275 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to algae : EC50 (Algae): 0.14 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

hydroquinone:

Toxicity to fish : LC50 (Fish): 0.044 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia): 0.090 mg/l
aquatic invertebrates Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 0.33 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic tox- : 10
icity)

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Product:



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Environmental fate and pathways : No data available

Additional ecological information : There is no data available for this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Seveso II - Directive 2003/105/EC amending Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Quantity 1

Quantity 2

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



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7b	Highly flammable	5,000 t	50,000 t
13	Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams)	2,500 t	25,000 t

Volatile organic compounds : 172 g/l

Directive 2004/42/EC : (540 g/l)

15.2 Chemical Safety Assessment

not applicable

SECTION 16: Other information

Full text of R-Phrases

R10	Flammable.
R11	Highly flammable.
R20	Harmful by inhalation.
R22	Harmful if swallowed.
R36	Irritating to eyes.
R36/38	Irritating to eyes and skin.
R40	Limited evidence of a carcinogenic effect.
R41	Risk of serious damage to eyes.
R43	May cause sensitisation by skin contact.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R50	Very toxic to aquatic organisms.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62	Possible risk of impaired fertility.
R63	Possible risk of harm to the unborn child.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.
R68	Possible risk of irreversible effects.

Full text of H-Statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.



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H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure if inhaled.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Further information

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.



RETIC C 101

Version 1.0

MSDS Number: S00005

Revision Date: 23.06.2016

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

1.1 Product identifier

Trade name : RETIC C 101

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

Use of the Sub-
stance/Mixture : Catalyst

Recommended restrictions
on use : For use in industrial installations or professional treatment
only.

1.3 Details of the supplier of the safety data sheet

Company : Roberlo s.a.
Ctra. Nacional II, Km. 706,5
17457 Riudellots de la Selva
Spain

Telephone : +34972478060

Telefax : +34972477394

E-mail address of person
responsible for the SDS : msds@roberlo.com

1.4 Emergency telephone number

+34 972 478060 (8:00-12:45 / 14:15-17:30 h) ROBERLO (Spain) (GMT + 1:00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3 H226: Flammable liquid and vapour.

Organic Peroxides, Type D H242: Heating may cause a fire.

Acute toxicity, Category 4 H302: Harmful if swallowed.

Skin corrosion, Category 1B H314: Causes severe skin burns and eye damage.

Specific target organ toxicity - single ex-
posure, Category 3 H335: May cause respiratory irritation.

Classification (67/548/EEC, 1999/45/EC)

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Flammable	R10: Flammable.
Oxidising	R 7: May cause fire.
Harmful	R22: Harmful if swallowed.
Corrosive	R34: Causes burns.
Irritant	R37: Irritating to respiratory system.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
H242 Heating may cause a fire.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.

Precautionary statements : **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 Keep/Store away from clothing/ combustible materials.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

Ethyl methyl ketone peroxide

hydrogen peroxide



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diacetone alcohol

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Mixture
Organic Peroxides, Liquid

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
Ethyl methyl ketone peroxide	1338-23-4 215-661-2	O; R 7 C; R34 Xn; R22	Org. Perox. D; H242 Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318	>= 25 - < 40
diacetone alcohol	123-42-2 204-626-7 01- 2119473975-21	Xi; R36	Flam. Liq. 3; H226 Eye Irrit. 2; H319 STOT SE 3; H335	>= 5 - < 15
methylethylketone	78-93-3 201-159-0 01- 2119457290-43	F; R11 Xi; R36 R66 R67	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	>= 1 - < 5
hydrogen peroxide	hydrogen per- oxide solution 231-765-0	O; R 8 R 5 C; R35 Xn; R20/22	Ox. Liq. 1; H271 Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Corr. 1A; H314 STOT SE 3; H335	>= 1 - < 5
tributylamine	102-82-9 203-058-7 01- 2119474898-14	T; R23/24 Xn; R22 Xi; R38	Acute Tox. 2; H310 Acute Tox. 2; H330 Acute Tox. 4; H302 Skin Irrit. 2; H315	>= 0.1 - < 0.5

For explanation of abbreviations see section 16.



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MSDS Number: S00005

Revision Date: 23.06.2016

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing media : High volume water jet



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Version 1.0

MSDS Number: S00005

Revision Date: 23.06.2016

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not use a solid water stream as it may scatter and spread fire.

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Use water spray to cool unopened containers.
For safety reasons in case of fire, cans should be stored separately in closed containments.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Evacuate personnel to safe areas.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect 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).

6.4 Reference to other sections

For contact information in case of emergency, see section 1. For information on safe handling, see section 7. For exposure controls and personal protection measures, see section 8. For subsequent waste disposal, follow the recommendations in section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
To avoid spills during handling keep bottle on a metal tray.

Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Keep



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away from combustible material.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of work-day.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage period : 12 Months

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : For the use of this product do not exist particular recommendations apart from that already indicated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
dimethyl phthalate	131-11-3	TWA	5 mg/m ³	GB EH40
dimethyl phthalate	131-11-3	STEL	10 mg/m ³	GB EH40
Ethyl methyl ketone peroxide	1338-23-4	STEL	0.2 ppm 1.5 mg/m ³	GB EH40
diacetone alcohol	123-42-2	TWA	50 ppm 241 mg/m ³	GB EH40
diacetone alcohol	123-42-2	STEL	75 ppm 362 mg/m ³	GB EH40
methylethylketone	78-93-3	STEL	300 ppm 900 mg/m ³	2000/39/EC
Further information	Indicative			
methylethylketone	78-93-3	TWA	200 ppm 600 mg/m ³	2000/39/EC
Further information	Indicative			
methylethylketone	78-93-3	TWA	200 ppm 600 mg/m ³	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
methylethylketone	78-93-3	STEL	300 ppm 899 mg/m ³	GB EH40
Further information	Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			



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hydrogen peroxide	hydrogen peroxide solution	TWA	1 ppm 1.4 mg/m3	GB EH40
hydrogen peroxide	hydrogen peroxide solution	STEL	2 ppm 2.8 mg/m3	GB EH40

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

- Ethyl methyl ketone peroxide : End Use: Workers
 Exposure routes: Inhalation
 Potential health effects: Long-term local effects
 Value: 1.9 mg/m3
- 4-hydroxy-4-methylpentan-2-one : End Use: Workers
 Exposure routes: Inhalation
 Potential health effects: Long-term systemic effects
 Value: 66.4 mg/m3
- butanone : End Use: Workers
 Exposure routes: Inhalation
 Potential health effects: Long-term local effects
 Value: 66.4 mg/m3
- butanone : End Use: Workers
 Exposure routes: Inhalation
 Potential health effects: Long-term systemic effects
 Value: 600 mg/m3

8.2 Exposure controls

Personal protective equipment

- Eye protection : Eye wash bottle with pure water
 Tightly fitting safety goggles
 Wear face-shield and protective suit for abnormal processing problems.
- Hand protection
- Remarks : Solvent-resistant gloves The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Before removing gloves clean them with soap and water.
- Skin and body protection : impervious clothing
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid



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Colour	: colourless
Odour	: characteristic
pH	: 4.7
Melting point/freezing point	: -20 °C
Boiling point/boiling range	: not determined
Flash point	: > 55 °C
Upper explosion limit	: not determined
Lower explosion limit	: not determined
Vapour pressure	: not determined
Density	: 1.128 g/cm ³ (20 °C) Method: ISO 2811-1
Solubility(ies)	
Water solubility	: insoluble
Viscosity	
Viscosity, dynamic	: not determined

9.2 Other information

Self-Accelerating decomposition temperature (SADT) : 62 °C

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if used as directed.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Incompatible with oxidizing agents.



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Strong reducing agents
Strong acids and strong bases

10.6 Hazardous decomposition products

Hazardous decomposition products : Other hazardous decomposition products may be formed.
Peroxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate : 1,362 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 2,000 mg/kg
Method: Calculation method

Components:

Ethyl methyl ketone peroxide:

Acute inhalation toxicity : LC50 (Rat): > 1.466 mg/l
Exposure time: 4 h
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): 4,000 mg/kg
Method: OECD Test Guideline 402

diacetone alcohol:

Acute oral toxicity : LD50 Oral (Rat): 3,002 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 7.6 mg/l
Exposure time: 4 h
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 13,750 mg/kg
Method: OECD Test Guideline 402

methylethylketone:

Acute oral toxicity : LD50 Oral (Rat): 2,737 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 23.5 mg/l



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Exposure time: 4 h
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit): 6,480 mg/kg
Method: OECD Test Guideline 402

hydrogen peroxide:
Acute oral toxicity : LD50 Oral (Rat): 1,193 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 0.170 mg/l
Exposure time: 4 h
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): 4,060 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Product:

Remarks: Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation

Product:

Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation

Product:

Remarks: Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Product:

Germ cell mutagenicity- Assessment : Based on available data, the classification criteria are not met.

Carcinogenicity

Product:

Carcinogenicity - Assessment : Based on available data, the classification criteria are not met.

Reproductive toxicity

Product:

Reproductive toxicity - Assessment : Based on available data, the classification criteria are not met.



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STOT - single exposure

Product:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

STOT - repeated exposure

Product:

Remarks: Based on available data, the classification criteria are not met.

Aspiration toxicity

Product:

Based on available data, the classification criteria are not met.

Further information

Product:

Remarks: Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:

Ethyl methyl ketone peroxide:

Toxicity to fish : LC50 (Fish): 44 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

diacetone alcohol:

Toxicity to fish : LC50 (Fish): 420 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): > 1,000 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): > 1,000 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

methylethylketone:

Toxicity to fish : LC50 (Fish): 2,993 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203



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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 380 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 1,972 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

hydrogen peroxide:

Toxicity to fish : LC50 (Fish): 16 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 2.4 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Algae): 1.4 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Product:

Additional ecological information : There is no data available for this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.



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Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number

ADR : 3105
IMDG : 3105
IATA : 3105

14.2 UN proper shipping name

ADR : ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL KETONE PEROXIDE(S))
IMDG : ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL KETONE PEROXIDE(S))
IATA : Organic peroxide type D, liquid (Methyl ethyl ketone peroxide(s))

14.3 Transport hazard class(es)

ADR : 5.2
IMDG : 5.2
IATA : 5.2

14.4 Packing group

ADR
Packing group : Not assigned by regulation
Classification Code : P1
Labels : 5.2

IMDG
Packing group : Not assigned by regulation
Labels : 5.2
EmS Code : F-J, S-R

IATA
Packing instruction (cargo aircraft) : 570
Packing group : Not assigned by regulation
Labels : Organic Peroxides, Keep Away From Heat

14.5 Environmental hazards



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ADR

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
P6b	SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES	50 kg	200 kg

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.

15.2 Chemical Safety Assessment

Not applicable

SECTION 16: Other information

Full text of R-Phrases

Acute Tox.	Acute toxicity
Eye Dam.	Serious eye damage
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquids
Org. Perox.	Organic peroxides
Ox. Liq.	Oxidizing liquids
R 5	Heating may cause an explosion.
R 7	May cause fire.
R 8	Contact with combustible material may cause fire.
R11	Highly flammable.
R20/22	Harmful by inhalation and if swallowed.
R22	Harmful if swallowed.
R23/24	Toxic by inhalation and in contact with skin.
R34	Causes burns.
R35	Causes severe burns.

Full text of H-Statements

H225	Highly flammable liquid and vapour.
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H226	Flammable liquid and vapour.
H242	Heating may cause a fire.
H271	May cause fire or explosion; strong oxidiser.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

Further information

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.