

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

BUTANOX M-50

Version 1

Revision Date 18.09.2015

Print Date 18.04.2016

PL / EN

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name : BUTANOX M-50

REACH Registration Number : 01-2119514691-43

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

Use of the Substance/Mixture : Specific use(s): Curing agent

1.3 Details of the supplier of the safety data sheet

Company : Akzo Nobel Functional Chemicals B.V.
Velperweg 76
NL 6824 BM Arnhem
Netherlands

Telephone : +31263664433

Telefax : +31263665830

E-mail address : RegulatoryAffairs@akzonobel.com

1.4 Emergency telephone number

Emergency telephone number : 24 hours:+31 57 06 79211, CHEMTREC-USA:1-800-424-9300, CANUTEC-CANADA:1-613-996-6666,
化学事故应急咨询电话：国家化学事故应急响应中心 +86 532 8388 9090

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Organic peroxides, D, H242, On basis of test data.

Acute toxicity, 4, H302, On basis of test data.

Skin corrosion, 1B, H314, Calculation method

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

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

Oxidising, O, R 7

Corrosive, C, R34

Harmful, Xn, R22

For the full text of the R-phrases mentioned in this Section, see Section 16.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Symbol(s)

:



Signal word

: Danger

Hazard statements

: H242
H302
H314

Heating may cause a fire.
Harmful if swallowed.
Causes severe skin burns and eye damage.

Precautionary statements

: **Prevention:**

P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P220

Keep away from dirt, rust, chemicals in particular.

P234

Keep only in original container.

P280

Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P303 + P361 + P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Hazardous components which must be listed on the label:

Methyl ethyl ketone peroxide; Reaction mass of butane- 1338-23-4
2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane

2.3 Other hazards

No further data available.

PBT and vPvB 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.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Hazardous substance

Chemical Name	PBT vPvB OEL	CAS-No. EC-No. REACH No.	Classification (REGULATION (EC) No 1272/2008)	Classification (67/548/EEC)	Concentration [%]
Methyl ethyl ketone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane		1338-23-4 215-661-2 01- 2119514691- 43	Org. Perox. A; H240 Acute Tox. 4; H302 Skin Corr. 1B; H314	E; R 2 C; R34 O; R 7 Xn; R22	30 - 40
Methyl ethyl ketone		78-93-3 201-159-0	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	F; R11 Xi; R36 R66 R67	1 - 3

Remarks : Methyl ethyl ketone peroxide 30-37% solution in dimethyl phthalate

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

For the full text of the R-phrases mentioned in this Section, see Section 16.

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

- General advice : Immediate medical attention is required.
Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
- If inhaled : If breathed in, move person into fresh air.
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Rinse immediately with 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 : Rinse with plenty of water.
Get medical attention immediately. Continue to rinse during

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transport.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
Small amounts splashed into eyes can cause irreversible tissue damage and blindness.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Never give anything by mouth to an unconscious person.
Take victim immediately to hospital.
Do not induce vomiting! May cause chemical burns in mouth and throat.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting / Specific hazards arising from the chemical : CAUTION: reignition may occur.
Supports combustion.
Water spray may be ineffective unless used by experienced firefighters.
Heating may cause decomposition with release of toxic fumes
Do not allow run-off from fire fighting to enter drains or water courses.

Combustion products : Fire will produce smoke containing hazardous combustion products (see section 10).

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.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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.

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.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up /
Methods for containment : Keep wetted with water.
Soak up with inert absorbent material and dispose of as hazardous waste.
Confinement must be avoided.
Never return spills in original containers for re-use.

6.4 Reference to other sections

Additional advice : For personal protection see section 8.

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.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Use explosion protected equipment.
Keep away from sources of ignition - No smoking.
No sparking tools should be used.
Keep away from reducing agents (e.g. amines), acids, alkalies and heavy metal compounds (e.g. accelerators, driers, metal soaps).
Do not cut or weld on or near this container even when empty.
Keep away from combustible material.

Temperature class : It is recommended to use electrical equipment of temperature group T3. However, autoignition can never be excluded.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : No smoking.
Electrical installations / working materials must comply with the technological safety standards.
Keep only in original container.
Store away from other materials.

Maximum storage temperature: : 25 °C

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

7.3 Specific end use(s)

Specific use(s) : Consult the technical guidelines for the use of this substance/mixture.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis	Form of exposure
Dimethyl phthalate	131-11-3	NDS	5 mg/m ³	2014-06-23	PL OEL	
		NDSch	10 mg/m ³	2014-06-23	PL OEL	
		NDSch	10 mg/m ³	2002-11-29	PL OEL	
Methyl ethyl ketone	78-93-3	TWA	200 ppm 600 mg/m ³	2009-12-19	2000/39/EC	
		Further information	:	Indicative		
		STEL	300 ppm 900 mg/m ³	2009-12-19	2000/39/EC	
		Further information	:	Indicative		
		NDS	450 mg/m ³	2014-06-23	PL OEL	
		NDSch	900 mg/m ³	2014-06-23	PL OEL	

STEL: Short term exposure limit

TWA: Time Weighted Average

Occupational exposure limits of decomposition products

Decomposition products	CAS-No.	Value	Control parameters	Update	Basis	Form of exposure
Formic acid	64-18-6, 64-18-6	TWA	5 ppm 9 mg/m ³	2009-12-19		
		Further information	:			
		NDS	5 mg/m ³	2014-06-23		
		NDSch	15 mg/m ³	2014-06-23		
Acetic acid	64-19-7, 64-19-7	TWA	10 ppm 25 mg/m ³	2009-12-19		
		Further information	:			
		NDS	25 mg/m ³	2014-06-23		
		NDSch	50 mg/m ³	2014-06-23		
Propionic acid	79-09-4, 79-09-4	TWA	10 ppm 31 mg/m ³	2009-12-19		
		Further information	:			
		STEL	20 ppm 62 mg/m ³	2009-12-19		
		Further information	:			
		NDS	30 mg/m ³	2014-06-23		
		NDSch	45 mg/m ³	2014-06-23		
Methyl ethyl ketone	78-93-3, 78-93-3	TWA	200 ppm 600 mg/m ³	2009-12-19		
		Further information	:			

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	information				
		STEL	300 ppm 900 mg/m ³	2009-12-19	
	Further information	:			
		NDS	450 mg/m ³	2014-06-23	
		NDSch	900 mg/m ³	2014-06-23	

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

Substance name	End Use	Exposure routes	Potential health effects	Value
Methyl ethyl ketone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	Consumers	Skin contact	Long-term systemic effects	0,54 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0,41 mg/m ³
	Consumers	Ingestion	Long-term systemic effects	0,27 mg/kg
	Workers	Skin contact	Long-term systemic effects	1,08 mg/kg
	Workers	Inhalation	Long-term systemic effects	1,9 mg/m ³
	Methyl ethyl ketone	Workers	Inhalation	Long-term systemic effects
Workers		Skin contact	Long-term systemic effects	1161 mg/kg
Consumers		Inhalation	Long-term systemic effects	106 mg/m ³
Consumers		Skin contact	Long-term systemic effects	412 mg/kg
Consumers		Ingestion	Long-term systemic effects	31 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	Environmental Compartment	Value
Methyl ethyl ketone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	Fresh water	0,0056 mg/l
	Intermittent water	0,056 mg/l
	Marine water	0,00056 mg/l
	Fresh water sediment	0,019 mg/kg dry weight
	Marine sediment	0,0019 mg/kg dry weight
	Sewage treatment plant	1,2 mg/l
	Soil	0,00231 mg/kg dry weight
Methyl ethyl ketone	Fresh water	55,8 mg/l
	Marine water	55,8 mg/l
	Intermittent water	55,8 mg/l
	Sewage treatment plant	709 mg/l
	Fresh water sediment	284,74 mg/kg dry weight
	Marine sediment	284,74 mg/kg dry weight

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	Soil	22,5 mg/kg dry weight
	Oral	1000 mg/kg food

8.2 Exposure controls

Engineering controls

Explosion proof ventilation recommended.

Effective exhaust ventilation system

Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Respiratory protection : In the case of vapour or aerosol formation use a respirator with an approved filter.
Filter A

Hand protection : butyl-rubber
Neoprene

Eye protection : Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Protective suit

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.

Environmental exposure controls

General advice : Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Form : liquid

Colour : clear
colourless

Odour : Faint.

Odour Threshold : No data available

Safety data

pH : Weakly acidic

Melting point : No data available

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Boiling point/boiling range	: Decomposes below the boiling point.
Flash point	: Above the SADT value No flash point was obtained, but the product may release flammable vapour.
Evaporation rate	: No data available
Flammability (solid, gas)	: Decomposition products may be flammable.
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Vapour pressure	: 1 hPa at 84 °C
Relative vapour density	: No data available
Relative density	: 1,180 at 20 °C
Bulk density	: Not applicable
Water solubility	: at 20 °C partly miscible
Solubility in other solvents	: 20 °C Miscible with:, Phthalates
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: Test method not applicable
Decomposition temperature	: SADT - (Self accelerating decomposition temperature) is the lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT. Contact with incompatible substances can cause decomposition below the SADT.
Self-Accelerating decomposition temperature (SADT)	: 60 °C
Viscosity, dynamic	: 24 mPa.s at 20 °C
Viscosity, kinematic	: 20,34 mm ² /s at 20 °C
Explosive properties	: Not explosive
Oxidizing properties	: Not classified as oxidising.

9.2 Other information

Active Oxygen Content : 8,8 - 9,0 %

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Organic peroxides : 30 - 37 %

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : Confinement must be avoided.
Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Contact with incompatible materials will result in hazardous decomposition.
For queries regarding the suitability of other materials please contact the supplier.
Do not mix with peroxide accelerators, unless under controlled processing.
Use only stainless steel 316, PP, polyethylene or glass-lined equipment.
Acids and bases
Iron
Copper
Reducing agents
Heavy metals
Rust

10.6 Hazardous decomposition products

Hazardous decomposition products : Carbon oxides
Formic acid
Acetic acid
Propionic acid
Methyl ethyl ketone

Thermal decomposition : SADT - (Self accelerating decomposition temperature) is the lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT. Contact with incompatible substances can cause decomposition below the SADT.

Self-Accelerating decomposition temperature (SADT) : 60 °C

SECTION 11: TOXICOLOGICAL INFORMATION

Product information:

Hazard Summary

- Inhalation : Inhalation of aerosols may cause irritation to mucous membranes.
Thermal decomposition can lead to release of irritating gases and vapours.
- Skin : Symptoms may be delayed.
May be harmful in contact with skin.
Causes severe skin burns.
- Eyes : Causes serious eye damage.
- Ingestion : Harmful if swallowed.
Causes burns.

Toxicology Assessment

- Acute effects : Causes eye burns.
Causes skin burns.
Harmful if swallowed.
May be harmful in contact with skin or if inhaled.
- Further information : No further data available.

11.1 Information on toxicological effects

Test result

- Acute oral toxicity : LD50: 1 017 mg/kg
Species: rats
Method: OECD Test Guideline 401
- Acute inhalation toxicity : LC50 (Rat): 17 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity : LD50: 4 000 mg/kg
Species: Rat
Method: OECD Test Guideline 402
- Skin irritation : Species: Rabbit
Result: Sub-category 1B
Classification: Sub-category 1B
Method: Tested according to Annex V of Directive 67/548/EEC.
- Eye irritation : Species: Rabbit
Result: Risk of serious damage to eyes.
Classification: Risk of serious damage to eyes.
Method: Tested according to Annex V of Directive 67/548/EEC.

Toxicology data for the components:

Test result

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Methyl ethyl ketone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane

- Acute oral toxicity : LD50: 1 017 mg/kg
Species: Rat
- Acute inhalation toxicity : LC50 (Rat): 17 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
- Acute dermal toxicity : LD50: 4 000 mg/kg
Species: Rat
- Skin irritation : Result: Causes burns.
- Eye irritation : Result: Risk of serious damage to eyes.
- Germ cell mutagenicity
- Genotoxicity in vitro : Ames test
Result: negative
- Genotoxicity in vivo : Not classified due to data which are conclusive although insufficient for classification.
- Carcinogenicity :
No data available
- Reproductive toxicity/Fertility : Species: Rat, male and female
Application Route: Oral
Dose: 0, 25, 50, 75 milligram per kilogram
General Toxicity - Parent: No observed adverse effect level:
50 mg/kg bw/day
General Toxicity F1: No observed adverse effect level F1: 50
mg/kg bw/day
Fertility: No observed adverse effect level Parent: 75 mg/kg
bw/day
Method: OECD Test Guideline 421
GLP: yes
- Target Organ Systemic Toxicant - Repeated exposure : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
- Aspiration toxicity : No aspiration toxicity classification

Methyl ethyl ketone

- Acute oral toxicity : LD50: 2 737 mg/kg
Species: Rat
- Acute dermal toxicity : LD50: 6 480 mg/kg
Species: Rabbit
- Skin irritation : Result: Repeated exposure may cause skin dryness or cracking.
Moderately irritating.

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Eye irritation	: Result: Irritating to eyes.
Target Organ Systemic Toxicant - Single exposure	: Exposure routes: Inhalation The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.
Aspiration toxicity	: No aspiration toxicity classification

SECTION 12: ECOLOGICAL INFORMATION

Product information:

Ecotoxicology Assessment

Acute aquatic toxicity	: Harmful to fish.
Chronic aquatic toxicity	: No toxicity at the limit of solubility
Additional ecological information	: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

12.1 Toxicity

Components:

Ecotoxicology Assessment

Methyl ethyl ketone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane

Acute aquatic toxicity	: Harmful to aquatic life.
------------------------	----------------------------

Test result

Methyl ethyl ketone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane

Toxicity to fish	: LC50: 44,2 mg/l Exposure time: 96 h Species: <i>Poecilia reticulata</i> (guppy) Test Type: semi-static test
Toxicity to daphnia and other aquatic invertebrates	: 39 mg/l Exposure time: 48 h Species: <i>Daphnia magna</i> (Water flea) Test Type: Immobilization
Toxicity to algae	: LC50: 5,6 mg/l Exposure time: 72 h Species: <i>Pseudokirchneriella subcapitata</i> (algae) Test Type: Growth inhibition
Toxicity to bacteria	: EC10: 12 mg/l Exposure time: 0,5 h Species: activated sludge Test Type: Respiration inhibition Method: Domestic OECD Guideline 209
Methyl ethyl ketone Toxicity to fish	: LC50: 3 220 mg/l Exposure time: 96 h Species: <i>Lepomis macrochirus</i> (Bluegill sunfish)

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12.2 Persistence and degradability

Product information : No information available.

Components:

Methyl ethyl ketone peroxide; Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane

Biodegradability : Result: Readily biodegradable
Method: Closed Bottle test

Methyl ethyl ketone

Biodegradability : Result: Readily biodegradable

12.3 Bioaccumulative potential

Product information : No information available.

Components : No information available.

12.4 Mobility in soil

Product information : No information available.

Components : No information available.

12.5 Results of PBT and vPvB assessment

Product information:

PBT and vPvB 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.

Components : No information available.

12.6 Other adverse effects

Product information : No information available.

Components : No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Hazardous waste
Dispose of contents/container in accordance with local regulation.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not burn, or use a cutting torch on, the empty drum.
Due to the high risk of contamination recycling/recovery is not recommended.
Follow all warnings even after the container is emptied.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

ADN : UN 3105
ADR : UN 3105
RID : UN 3105
IMDG-Code : UN 3105
IATA-DGR : UN 3105

14.2 Proper shipping name

ADN : ORGANIC PEROXIDE TYPE D, LIQUID
(Methyl ethyl ketone peroxide)
ADR : ORGANIC PEROXIDE TYPE D, LIQUID
(Methyl ethyl ketone peroxide)
RID : ORGANIC PEROXIDE TYPE D, LIQUID
(Methyl ethyl ketone peroxide)
IMDG-Code : ORGANIC PEROXIDE TYPE D, LIQUID
(Methyl ethyl ketone peroxide)
IATA-DGR : Organic peroxide type D, liquid
(Methyl ethyl ketone peroxide)

14.3 Transport hazard class

ADN : 5.2
ADR : 5.2
RID : 5.2
IMDG-Code : 5.2
IATA-DGR : 5.2 (HEAT)

14.4 Packing group

ADN
Packing group : Not Assigned
Classification Code : P1
Labels : 5.2
ADR
Packing group : Not Assigned
Classification Code : P1
Labels : 5.2
Tunnel restriction code : (D)
RID
Packing group : Not Assigned
Classification Code : P1
Hazard Identification Number : 539
Labels : 5.2
IMDG-Code
Packing group : Not Assigned
Labels : 5.2
EmS Code : F-J, S-R
IATA-DGR
Packing instruction (cargo aircraft) : 570
Packing instruction (passenger aircraft) : 570
Packing group : Not Assigned
Labels : 5.2 (HEAT)

14.5 Environmental hazards

ADN
Environmentally hazardous : no

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ADR

Environmentally hazardous : no

RID

Environmentally hazardous : no

IMDG-Code

Marine pollutant : no

IATA-DGR

Environmentally hazardous : 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

Major Accident Hazard Legislation : ZEU_SEVES3
SELF-REACTIVE SUBSTANCES AND MIXTURES and
ORGANIC PEROXIDES
P6b
Quantity 1: 50 t
Quantity 2: 200 t

Water contaminating class (Germany) : WGK 1 slightly water endangering

Notification status

CH INV : YES. On the inventory, or in compliance with the inventory
TSCA : YES. All chemical substances in this product are either listed on the
TSCA Inventory or in compliance with a TSCA Inventory exemption.
DSL : YES. All components of this product are on the Canadian DSL.
AICS : YES. On the inventory, or in compliance with the inventory
NZIoC : YES. On the inventory, or in compliance with the inventory
ENCS : YES. On the inventory, or in compliance with the inventory
ISHL : YES. On the inventory, or in compliance with the inventory
KECI : YES. On the inventory, or in compliance with the inventory
PICCS : YES. On the inventory, or in compliance with the inventory
IECSC : YES. On the inventory, or in compliance with the inventory

For explanation of abbreviation see section 16.

Further information

Act of 25 February 2011 on the Chemical Substances and Their Mixtures (Dz. U. Nr. 63 item 322).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Official Journal of the European Union L 353 from 31.12.2008).

Commission Regulation (EC) No 790/2009 of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures (Official Journal of the European Union L 235 from 5.09.2009).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December

2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Official Journal of the European Union L 396 from 30.12.2006, as amended).

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Official Journal of the European Union L 133 from 31.05.2010).

Ordinance of the Minister of Health of 10th August 2012 concerning the criteria and procedure of classification of chemical substances and their mixtures (Dz. U. from 2012, item 1018).

Ordinance of the Minister of Economy, Labour and Social Policy of 21st December 2005 concerning the basic requirements for personal protective equipment (Dz. U. Nr. 259, item 2173).

Ordinance of the Minister of Labour and Social Policy of 29th November 2002 concerning the highest allowable concentrations and levels of the agents harmful for health in the workplace (Dz. U. Nr. 217, item 1833, as amended).

Ordinance of the Minister of Health of 2nd February 2011 concerning tests and measurement of agents harmful for health in the workplace (Dz. U. Nr. 33, item 166).

Ordinance of the Minister of Health of 30th December 2004 on the health and safety of workers related to chemical agents at work (Dz. U. from 2005, Nr. 11, item 86, as amended).

Act of 27th April 2001 on waste (Dz. U. Nr. 62, item 628, as amended).

Act of 11th May 2001 on containers and waste containers (Dz. U. Nr. 63, item 638, as amended).

Ordinance of the Minister of Environment of 27th September 2001 on Waste Catalog (Dz. U. Nr. 112, item 1206).

Ordinance of the Minister of Economy of 21st March 2001 concerning requirements on waste thermal treatment processing (Dz. U. Nr. 37, item. 339, as amended).

Act of 19 August 2011 on transport of dangerous goods (Dz. U. Nr. 227, item 1367).

Government Statement of 26 July 2005 on enforcing of changes Annexes A and B of European Agreement concerning international transport of dangerous goods by road (ADR) (Dz. U. Nr. 178, item 1481).

Ordinance of the Minister of Health of 20th April 2012 concerning labeling of containers of dangerous substances and dangerous mixtures and some mixtures (Dz. U. from 2012, item 445).

Ordinance of the Minister of Health of 11th June 2012 concerning categories of dangerous substances and dangerous mixtures for which containers must be fitted with child-resistant fastenings and a tactile warning of danger (Dz. U. from 2012, item 688).

This product is to be considered as a substance according to EU-legislation.

15.2 Chemical Safety Assessment

Methyl ethyl ketone : A Chemical Safety Assessment has been carried out for this
peroxide; Reaction mass of substance.
butane-2,2-diyl
dihydroperoxide and di-sec-
butylhexaoxidane

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H225 : Highly flammable liquid and vapour.
H240 : Heating may cause an explosion.
H242 : Heating may cause a fire.
H302 : Harmful if swallowed.
H314 : Causes severe skin burns and eye damage.
H319 : Causes serious eye irritation.

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H336 : May cause drowsiness or dizziness.

Full text of R-phrases referred to under sections 2 and 3

R 2	Risk of explosion by shock, friction, fire or other sources of ignition.
R 7	May cause fire.
R11	Highly flammable.
R22	Harmful if swallowed.
R34	Causes burns.
R36	Irritating to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

Explanations for possible abbreviations mentioned in section 2

PBT	: PBT: Persistent, bioaccumulative and toxic.
vPvB	: vPvB: Very persistent and very bioaccumulative.
OEL	: OEL: Occupational exposure limit.

Notification status explanation

CH INV	Switzerland. New notified substances and declared preparations
TSCA	United States TSCA Inventory
DSL	Canadian Domestic Substances List (DSL)
AICS	Australia Inventory of Chemical Substances (AICS)
NZIoC	New Zealand. Inventory of Chemical Substances
ENCS	Japan. ENCS - Existing and New Chemical Substances Inventory
ISHL	Japan. ISHL - Inventory of Chemical Substances
KECI	Korea. Korean Existing Chemicals Inventory (KECI)
PICCS	Philippines Inventory of Chemicals and Chemical Substances (PICCS)
IECSC	China. Inventory of Existing Chemical Substances in China (IECSC)

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.