

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version: 1.1

Product number: 213825

Revision Date: 19.08.2019

Print Date: 19.08.2019

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

### 1.1 Product identifier

Product number 213825

Product name AZ 10XT Photoresist (520 cP)

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

Identified uses Materials for use in technical applications

### 1.3 Details of the supplier of the safety data sheet

Company Merck KGaA \* 64271 Darmstadt \* Germany \* Phone:+49 6151 72-0  
Responsible Department PM-OQR \* e-mail: PM\_SDS\_Supply@merckgroup.com  
Regional representation Merck Chemicals Ltd \* Boulevard Industrial Park \* Padge Road \*  
Beeston \* Nottingham \* NG9 2JR \* Tel. 01159 430840  
\*information@merckgroup.com.

### 1.4 Emergency telephone number

+49 (0) 6151 722440

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## 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.

Specific target organ toxicity - single exposure, Category 3, Central nervous system H336: May cause drowsiness or dizziness.  
Calculation method

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :  

Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.  
H336 May cause drowsiness or dizziness.

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Precautionary statements : **Prevention:**  
P210 Keep away from heat.

Hazardous components which must be listed on the label:

1-Methoxy-2-propanol acetate

Reduced Labelling (<= 125 ml)

Hazard pictograms



Signal word  
Warning

### 2.3 Other hazards

None known.

## SECTION 3: Composition/information on ingredients

Chemical nature : Organic mixture in:  
Solvent

### 3.1 Substance

Not applicable

### 3.2 Mixtures

#### Hazardous components

Chemical name	CAS-No. Registration number	Classification	Concentration (% w/w)
Naphthoquinone Diazide Derivative	52125-43-6	Self-heat. 1; H251 Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 1 - < 10
Cresol	1319-77-3	Acute Tox. 3; H301 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412	>= 0.1 - < 0.25

#### Substances with a workplace exposure limit

1-Methoxy-2-propanol acetate	108-65-6 01-2119475791-29- xxxx	Flam. Liq. 3; H226 STOT SE 3; H336	>= 50 - <= 100
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### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- If inhaled : fresh air. Call in physician.
- In case of skin contact : rinse out with polyethylene glycol 400 or a mixture of polyethylene glycol 300/ethanol 2:1 and wash with plenty of water. If neither is available wash with plenty of water. Immediately take off contaminated clothing. Seek medical advice immediately.
- In case of eye contact : rinse out with plenty of water. Remove contact lenses.
- If swallowed : immediately make victim drink water (two glasses at most). Consult a physician.

#### 4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Headache  
narcosis  
Unconsciousness  
Drowsiness  
inebriation  
delirium  
Salivation  
Gastrointestinal disturbance  
slow pulse
- somnolence  
Drowsiness

#### 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 : Water  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder
- Unsuitable extinguishing media : For this substance/mixture no limitations of extinguishing agents are given.

#### 5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Combustible.

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Vapours are heavier than air and may spread along floors.  
Forms explosive mixtures with air at elevated temperatures.  
Development of hazardous combustion gases or vapours possible in the event of fire.

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information : Cool closed containers exposed to fire with water spray. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Advice for non-emergency personnel:  
Do not breathe vapours, aerosols.  
Avoid substance contact.  
Ensure adequate ventilation.  
Keep away from heat and sources of ignition.  
Evacuate the danger area, observe emergency procedures, consult an expert.  
Advice for emergency responders:  
Protective equipment see section 8.

### 6.2 Environmental precautions

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

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Cover drains. Collect, bind, and pump off spills.  
Observe possible material restrictions (see sections 7 and 10).  
Take up with liquid-absorbent material (e.g. Chemizorb®).  
Dispose of properly. Clean up affected area.

### 6.4 Reference to other sections

Indications about waste treatment see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.  
Do not inhale substance/mixture.  
Avoid generation of vapours/aerosols.

Observe label precautions.

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Advice on protection against fire and explosion : Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures : Change contaminated clothing. Wash hands after working with substance.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container.

Further information on storage conditions : Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Protected from light.

Risks from decomposition products: see section 10.3

Recommended storage temperature : Recommended storage temperature see product label.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
1-Methoxy-2-propanol acetate	108-65-6	STEL	100 ppm 550 mg/m <sup>3</sup>	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
	108-65-6	TWA	50 ppm 275 mg/m <sup>3</sup>	2000/39/EC
Further information	Identifies the possibility of significant uptake through the skin, Indicative			
	108-65-6	TWA	50 ppm 274 mg/m <sup>3</sup>	GB EH40
Further information	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
	108-65-6	STEL	100 ppm 548 mg/m <sup>3</sup>	GB EH40
Further information	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
Cresol	1319-77-3	TWA	5 ppm 22 mg/m <sup>3</sup>	91/322/EEC
Further information	Indicative, Existing scientific data on health effects appear to be particularly limited			
	1319-77-3	TWA (Inhalable	20 mg/m <sup>3</sup>	ACGIH

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		fraction and vapor)		
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### 8.2 Exposure controls

#### Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

#### Personal protective equipment

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled and must meet the specifications of a standard EN/ISO/DIN. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye protection : Safety glasses

Hand protection :

splash contact

Glove material : Nitrile rubber

Glove thickness : 0.4 mm

Break through time : 10 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example:KCL 730 Camatril® -Velours(splash contact);.

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Protective measures : Flame retardant antistatic protective clothing.

Respiratory protection : required when vapours/aerosols are generated.

Recommended Filter type: : ABEK-filter

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

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General advice : Do not flush into surface water or sanitary sewer system.  
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### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Form	liquid
Colour	clear amber
Odour	characteristic
Odour Threshold	No information available.
pH	Not applicable
Melting point/freezing point	< -10 °C (solvent)
Boiling point/boiling range	146 °C (solvent)
Flash point	46 °C (solvent)
Evaporation rate	No information available.
Flammability (solid, gas)	The product is not flammable.
Lower explosion limit	1.5 %(V) (solvent)
Upper explosion limit	7.0 %(V) (solvent)
Vapour pressure	5.22 hPa at 25 °C (solvent)
Relative vapour density	No data available
Density	ca. 1.07 g/cm <sup>3</sup> at 25 °C
Solubility(ies)	No information available.
Water solubility	partly soluble - phase separation
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	The substance or mixture is not classified as self heating.
Decomposition temperature	No information available.

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Viscosity, kinematic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none

### 9.2 Other data

Relative density	1.075 at 25 °C
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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Vapour/air-mixtures are explosive at intense warming.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Hazardous reactions	: Risk of ignition or formation of inflammable gases or vapours with: Oxidizing agents
	Violent reactions possible with: alkalines Peroxides Strong oxidizing agents Nitric acid fuming sulfuric acid

### 10.4 Conditions to avoid

Conditions to avoid	: Heating.  Exposure to light.
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### 10.5 Incompatible materials

Materials to avoid	: no information available
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### 10.6 Hazardous decomposition products

in the event of fire: See section 5.

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## SECTION 11: Toxicological information



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### 11.1 Information on toxicological effects

#### Acute toxicity

##### Product:

Acute oral toxicity : Acute Toxicity Estimate (ATE): > 2,000 mg/kg  
Method: Calculation method

Acute inhalation toxicity : No data available

Acute dermal toxicity : Acute Toxicity Estimate (ATE): > 2,000 mg/kg  
Method: Calculation method

##### Components:

##### **Naphthoquinone Diazide Derivative:**

Acute oral toxicity : LD50 (Rat, female): > 5,000 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : No data available

Acute dermal toxicity : No data available

##### **Cresol:**

Acute oral toxicity : LD50 (Rat, male): 121 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : No data available

Acute dermal toxicity : LD50 (Rabbit): 301 mg/kg  
Remarks: (ECHA)

##### **1-Methoxy-2-propanol acetate:**

Acute oral toxicity : LD50 (Rat, male and female): 6,190 mg/kg  
Method: OECD Test Guideline 401  
Remarks: (ECHA)

Acute inhalation toxicity : No data available

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
Remarks: (ECHA)

#### Skin corrosion/irritation

##### Product:

No data available

##### Components:

##### **Naphthoquinone Diazide Derivative:**

Species: Human

Method: OECD Test Guideline 431

Result: Skin irritation

Remarks: (IUCLID)

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### **Cresol:**

Species: Rabbit  
Result: Corrosive  
Remarks: (ECHA)

### **1-Methoxy-2-propanol acetate:**

Species: Rabbit  
Exposure time: 24 h  
Method: OECD Test Guideline 404  
Result: No skin irritation  
Remarks: (ECHA)

### **Serious eye damage/eye irritation**

#### **Product:**

No data available

#### **Components:**

##### **Naphthoquinone Diazide Derivative:**

Species: Rabbit  
Method: OECD Test Guideline 405  
Result: irritating  
Remarks: (IUCLID)

##### **Cresol:**

Species: Rabbit  
Result: Risk of serious damage to eyes.  
Remarks: (ECHA)

##### **1-Methoxy-2-propanol acetate:**

Species: Rabbit  
Method: OECD Test Guideline 405  
Result: No eye irritation  
Remarks: (ECHA)

### **Respiratory or skin sensitisation**

#### **Product:**

No data available

#### **Components:**

##### **Naphthoquinone Diazide Derivative:**

Test Type: Local lymph node assay (LLNA)  
Species: Mouse  
Method: OECD Test Guideline 429  
Result: negative  
Remarks: (IUCLID)

##### **1-Methoxy-2-propanol acetate:**

Test Type: Maximisation Test  
Exposure routes: dermal  
Species: Guinea pig

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Method: OECD Test Guideline 406  
Result: Does not cause skin sensitisation.  
Remarks: (ECHA)

### Germ cell mutagenicity

#### Product:

No data available

#### Components:

##### **Naphthoquinone Diazide Derivative:**

Genotoxicity in vitro : Test Type: Ames test  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)  
Result: negative  
Remarks: (IUCLID)

##### **Cresol:**

Genotoxicity in vitro : Test Type: Ames test  
Test system: Escherichia coli/Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative

: Test Type: In vitro mammalian cell gene mutation test  
Test system: mouse lymphoma cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative

: Test Type: unscheduled DNA synthesis assay  
Test system: rat hepatocytes  
Metabolic activation: without metabolic activation  
Method: OECD Test Guideline 482  
Result: negative

: Test Type: Chromosome aberration test in vitro  
Test system: Chinese hamster lung cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 473  
Result: positive

Genotoxicity in vivo : Test Type: In vivo micronucleus test  
Species: Mouse (male and female)  
Cell type: Red blood cells (erythrocytes)  
Application Route: Oral  
Result: negative  
Remarks: (ECHA)

Test Type: dominant lethal test

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Species: Mouse (male)  
Application Route: Oral  
Method: OECD Test Guideline 478  
Result: negative

### 1-Methoxy-2-propanol acetate:

Genotoxicity in vitro : Test Type: Ames test  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: (ECHA)

### Carcinogenicity

#### Product:

This information is not available.

#### Components:

This information is not available.

### Reproductive toxicity

#### Product:

No data available

#### Components:

### 1-Methoxy-2-propanol acetate:

Effects on fertility : No data available  
Effects on foetal development : Species: Rat, female  
Application Route: Inhalation  
NOAEL Teratog.: > 22.5 mg/l  
NOAEL Mater.: 2.7 mg/l  
Number of exposures: daily  
Test period: 21 d  
Method: OECD Test Guideline 414  
Remarks: (ECHA)

### STOT - single exposure

#### Product:

No data available

#### Components:

### 1-Methoxy-2-propanol acetate:

Assessment: May cause drowsiness or dizziness.  
Remarks: (ECHA)

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### STOT - repeated exposure

**Product:**

No data available

**Components:**

No data available

### Repeated dose toxicity

**Product:**

No data available

**Components:**

**1-Methoxy-2-propanol acetate:**

Species: Rat, male and female

NOAEL:  $\geq$  1,000 mg/kg

Application Route: Oral

Exposure time: 44 d

Number of exposures: daily

Method: OECD Test Guideline 422

Remarks: (ECHA)

Subacute toxicity

### Aspiration toxicity

**Product:**

No data available

**Components:**

No data available

### 11.2 Other information

**Product:**

Headache

narcosis

Unconsciousness

Drowsiness

inebriation

delirium

Salivation

Gastrointestinal disturbance

slow pulse

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

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## SECTION 12: Ecological information

### 12.1 Toxicity

**Product:**

No data available

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### Components:

#### **Naphthoquinone Diazide Derivative:**

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202  
Remarks: (IUCLID)

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 1.43 - 1.58 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: (IUCLID)

Toxicity to microorganisms : IC50 (Bacteria): > 7 mg/l  
Remarks: (Lit.)

#### **Cresol:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 7.4 mg/l  
Exposure time: 96 h  
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 7.7 mg/l  
Exposure time: 48 h  
Test Type: static test  
Analytical monitoring: no  
Method: DIN 38412 part 11

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): 21 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: DIN 38412 part 9

Toxicity to microorganisms : EC50 (activated sludge): 11.4 mg/l  
Exposure time: 4 h  
Test Type: static test  
Analytical monitoring: no

Toxicity to fish (Chronic toxicity) : NOEC: 1.35 mg/l  
Exposure time: 32 d  
Species: Pimephales promelas (fathead minnow)  
Test Type: flow-through test  
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 1 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Test Type: semi-static test  
Analytical monitoring: yes  
Remarks: (ECHA)

#### **1-Methoxy-2-propanol acetate:**

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Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 134 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203 Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 408 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 Remarks: (ECHA)
Toxicity to algae/aquatic plants	:	NOEC (Pseudokirchneriella subcapitata (green algae)): > 1,000 mg/l Exposure time: 96 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 Remarks: (ECHA)  ErC50 (Pseudokirchneriella subcapitata (green algae)): > 1,000 mg/l Exposure time: 96 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 Remarks: (ECHA)
Toxicity to microorganisms	:	EC10 (activated sludge): > 1,000 mg/l Exposure time: 30 min Test Type: static test Method: OECD Test Guideline 209 Remarks: (ECHA)  EC20 (activated sludge): > 1,000 mg/l Exposure time: 30 min Test Type: static test Method: OECD Test Guideline 209 Remarks: (ECHA)
Toxicity to fish (Chronic toxicity)	:	NOEC: 47.5 mg/l Exposure time: 14 d Species: Oryzias latipes (Orange-red killifish) Test Type: flow-through test Analytical monitoring: yes Method: OECD Test Guideline 204 Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: $\geq$ 100 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: semi-static test Analytical monitoring: yes Method: OECD Test Guideline 211

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Remarks: (ECHA)

### 12.2 Persistence and degradability

#### Product:

No data available

#### Components:

##### **Naphthoquinone Diazide Derivative:**

Biodegradability : Result: Not readily biodegradable.  
Method: OECD Test Guideline 301D

##### **Cresol:**

Biodegradability : Test Type: aerobic  
Inoculum: activated sludge  
Concentration: 0.8 mg/l  
Result: Readily biodegradable.  
Biodegradation: 90 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301D

##### **1-Methoxy-2-propanol acetate:**

Biodegradability : Test Type: aerobic  
Inoculum: activated sludge  
Concentration: 76.4 mg/l  
Result: Readily biodegradable.  
Biodegradation: 83 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F  
Remarks: (ECHA)

Biochemical Oxygen Demand (BOD) : 330 mg/g  
Incubation time: 5 d  
Remarks: (IUCLID)

Chemical Oxygen Demand (COD) : 1,740 mg/g  
Remarks: (IUCLID)

ThOD : 1,820 mg/g  
Remarks: (IUCLID)

### 12.3 Bioaccumulative potential

#### Product:

Bioaccumulation : No data available

#### Components:

##### **Naphthoquinone Diazide Derivative:**

Partition coefficient: n- : log Pow: 5.2 (25 °C)



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octanol/water

Method: OECD Test Guideline 117

Remarks: Potential bioaccumulation

### **Cresol:**

Partition coefficient: n-  
octanol/water

: log Pow: 2.33

Method: OECD Test Guideline 117

Remarks: Bioaccumulation is not expected.

### **1-Methoxy-2-propanol acetate:**

Partition coefficient: n-  
octanol/water

: log Pow: 1.2 (20 °C)

Method: OECD Test Guideline 117

Remarks: Bioaccumulation is not expected.  
(ECHA)

## 12.4 Mobility in soil

### **Product:**

No data available

### **Components:**

#### **Naphthoquinone Diazide Derivative:**

No data available

#### **Cresol:**

No data available

#### **1-Methoxy-2-propanol acetate:**

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..

### **Components:**

#### **Naphthoquinone Diazide Derivative:**

No data available

#### **Cresol:**

No data available

#### **1-Methoxy-2-propanol acetate:**

Assessment : Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII..

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### 12.6 Other adverse effects

#### Product:

Additional ecological information : Discharge into the environment must be avoided.

Discharge into the environment must be avoided.

#### Components:

##### **Naphthoquinone Diazide Derivative:**

No data available

##### **Cresol:**

No data available

##### **1-Methoxy-2-propanol acetate:**

No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Notice Directive on waste 2008/98/EC.

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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## SECTION 14: Transport information

### Air transport(IATA)

14.1. UN/ID No. : UN 1993

14.2. Proper shipping name : Flammable liquid, n.o.s.

(2-methoxy-1-methylethyl acetate)

14.3. Class : 3

14.4. Packing group : III

14.5 Environmentally hazardous : --

14.6 Special precautions for user : no

### Sea transport(IMDG)

14.1. UN number : UN 1993

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**14.2. Proper shipping name** : FLAMMABLE LIQUID, N.O.S.  
(2-methoxy-1-methylethyl acetate)

**14.3. Class** : 3

**14.4. Packing group** : III

**14.5 Environmentally hazardous** : --

**14.6 Special precautions for user** : yes

EmS Code : F-E, S-E

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
Not relevant

### Land transport(ADR/RID)

**14.1. UN number** : UN 1993

**14.2. Proper shipping name** : FLAMMABLE LIQUID, N.O.S.  
(2-methoxy-1-methylethyl acetate)

**14.3. Class** : 3

**14.4. Packing group** : III

**14.5 Environmentally hazardous** : --

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## SECTION 15: Regulatory information

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

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

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : See Annex XVII to Regulation (EC) no 1907/2006 for Conditions of restriction  
Number on list: 3

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
P5c	FLAMMABLE LIQUIDS	5,000 t	50,000 t

Storage class : 3

Other regulations : Take note of Dir 94/33/EC on the protection of young people at work.

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### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

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### SECTION 16: Other information

#### Training advice

Provide adequate information, instruction and training for operators.

#### Full text of H-Statements

H226	:	Flammable liquid and vapour.
H251	:	Self-heating: may catch fire.
H301	:	Toxic if swallowed.
H311	:	Toxic 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.
H336	:	May cause drowsiness or dizziness.
H412	:	Harmful to aquatic life with long lasting effects.

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

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AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

### Disclaimer

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.