

# SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



## TMCH-50-AL

Version	Revision Date:	SDS Number:	Date of last issue: 17.07.2018
2.0	28.07.2020	600000000193	Date of first issue: 17.07.2018

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

#### 1.1 Product identifier

Trade name : TMCH-50-AL

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

Use of the Substance/Mixture : polymerisation initiators

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

Company : United Initiators GmbH  
Dr.-Gustav-Adolph-Str. 3  
82049 Pullach

Telephone : +49 / 89 / 74422 – 0

E-mail address of person responsible for the SDS : contact@united-in.com

#### 1.4 Emergency telephone number

+49 / 89 / 74422 – 0 (24 h)

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification T.R. SEA No 28848

Flammable liquids, Category 3	H226: Flammable liquid and vapour.
Organic peroxides, Type E	H242: Heating may cause a fire.
Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Long-term (chronic) aquatic hazard, Category 4	H413: May cause long lasting harmful effects to aquatic life.

#### 2.2 Label elements

Labelling T.R. SEA No 28848



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- Hazard pictograms :  
- Signal word : Danger
- Hazard statements : H226 Flammable liquid and vapour.  
H242 Heating may cause a fire.  
H304 May be fatal if swallowed and enters airways.  
H413 May cause long lasting harmful effects to aquatic life.
- Supplemental Hazard Statements : EUH066 Repeated exposure may cause skin dryness or cracking.
- Precautionary statements : **Prevention:**  
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P220 Keep/Store away from clothing/ strong acids, bases, heavy metal salts and other reducing substances /combustible materials.  
P234 Keep only in original container.  
P280 Wear protective gloves/ eye protection/ face protection.  
**Response:**  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.  
P331 Do NOT induce vomiting.  
P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.

Hazardous components which must be listed on the label:  
2,2,4,6,6-pentamethylheptane (CAS-No. 93685-81-5)

### 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 : Organic Peroxide  
Liquid mixture

#### Components

Chemical name	CAS-No. EC-No.	Classification	Concentration (% w/w)
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	Index-No. Registration number		
di-tert-butyl 3,3,5-trimethylcyclohexylidene diperoxide	6731-36-8 229-782-3	Org. Perox.B; H241 Aquatic Chronic4; H413	>= 50 - < 55
2,2,4,6,6-pentamethylheptane	93685-81-5 236-757-0	Flam. Liq.3; H226 Asp. Tox.1; H304 Aquatic Chronic4; H413	>= 50 - < 55

For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.  
Symptoms of poisoning may appear several hours later.  
No artificial respiration, mouth-to-mouth or mouth to nose. Use suitable instruments/apparatus.  
Call a physician immediately.
- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
- If inhaled : Call a physician or poison control centre immediately.  
If unconscious, place in recovery position and seek medical advice.  
Keep respiratory tract clear.  
If breathed in, move person into fresh air.
- In case of skin contact : Wash contaminated clothing before re-use.  
If on skin, rinse well with water.  
If on clothes, remove clothes.  
If symptoms persist, call a physician.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.  
Do NOT induce vomiting.  
Call a physician immediately.  
Contact a poison control center.

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

Risks : May be fatal if swallowed and enters airways.  
Repeated exposure may cause skin dryness or cracking.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically and supportively.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Water spray jet  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : High volume water jet

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

Specific hazards during fire-fighting : Contact with incompatible materials or exposure to temperatures exceeding SADT may result in a self-accelerating decomposition reaction with release of flammable vapors which may auto-ignite.  
The product burns violently.  
Flash back possible over considerable distance.  
Vapours may form explosive mixtures with air.  
Cool closed containers exposed to fire with water spray.

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.

Specific extinguishing methods : Do not use a solid water stream as it may scatter and spread fire.  
Remove undamaged containers from fire area if it is safe to do so.  
Use water spray to cool unopened containers.

Further information : 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.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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### 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.  
Follow safe handling advice and personal protective equipment recommendations.  
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.  
Never return spills in original containers for re-use.  
Treat recovered material as described in the section "Disposal considerations".

#### 6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

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

Methods for cleaning up : Contact with incompatible substances can cause decomposition at or below SADT.  
Clear spills immediately.  
Suppress (knock down) gases/vapours/mists with a water spray jet.  
To clean the floor and all objects contaminated by this material, use plenty of water.  
Soak up with inert absorbent material.  
Isolate waste and do not reuse.  
Non-sparking tools should be used.  
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.

#### 6.4 Reference to other sections

For personal protection see section 8.

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Advice on safe handling : Do not swallow.

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Do not breathe vapours/dust.  
Avoid formation of aerosol.  
Take precautionary measures against static discharges.  
Never return any product to the container from which it was originally removed.  
Provide sufficient air exchange and/or exhaust in work rooms.  
Avoid confinement.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Smoking, eating and drinking should be prohibited in the application area.  
Wash thoroughly after handling.  
For personal protection see section 8.  
Protect from contamination.

Advice on protection against fire and explosion : Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from heat and sources of ignition. Use only explosion-proof equipment. Keep away from combustible material.

Hygiene measures : Keep away from food and drink. When using do not eat or drink. When using do not smoke. Wash hands before breaks and immediately after handling the product.

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

Requirements for storage areas and containers : Avoid impurities (e.g. rust, dust, ash), risk of decomposition. Electrical installations / working materials must comply with the technological safety standards. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Store in accordance with the particular national regulations.

Advice on common storage : Keep away from strong acids, bases, heavy metal salts and other reducing substances.

Recommended storage temperature : < 30 °C

Further information on storage stability : No decomposition if stored normally.

### 7.3 Specific end use(s)

Specific use(s) : For further information, refer to the product technical data sheet.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

##### Derived No Effect Level (DNEL) :

Substance name	End Use	Exposure routes	Potential health effects	Value
di-tert-butyl 3,3,5-trimethylcyclohexylidene diperoxide	Workers	Inhalation	Long-term systemic effects	0,1 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	0,13 mg/kg bw/day

##### Predicted No Effect Concentration (PNEC) :

Substance name	Environmental Compartment	Value
di-tert-butyl 3,3,5-trimethylcyclohexylidene diperoxide	Fresh water	0,00021 mg/l
	Marine water	0,00021 mg/l
	Intermittent use/release	0,00021 mg/l
	Fresh water sediment	2,82 mg/kg
	Marine sediment	0,282 mg/kg
	Sewage treatment plant	100 mg/l

#### 8.2 Exposure controls

##### Engineering measures

Minimize workplace exposure concentrations.

##### Personal protective equipment

Eye protection : Tightly fitting safety goggles  
Please wear suitable protective goggles. Also wear face protection if there is a splash hazard.  
Ensure that eyewash stations and safety showers are close to the workstation location.

##### Hand protection

Material : Nitrile rubber  
Break through time : 480 min  
Glove thickness : 0,4 mm

Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

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Skin and body protection	:	Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Respiratory protection	:	In the case of dust or aerosol formation use respirator with an approved filter.
Filter type	:	ABEK-filter

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### SECTION 9: Physical and chemical properties

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

Appearance	:	liquid
Colour	:	colourless
Odour	:	musty
Odour Threshold	:	No data available
pH	:	No data available
Melting point/range	:	< -25 °C
Boiling point/boiling range	:	Decomposition: Decomposes below the boiling point.
Flash point	:	40 °C Method: ISO 3679
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available
Density	:	0,83 g/cm <sup>3</sup> (20 °C)
Solubility(ies) Water solubility	:	No data available
Viscosity Viscosity, dynamic	:	3 mPa.s (20 °C)



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Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.  
Organic peroxide

### 9.2 Other information

Self-Accelerating decomposition temperature (SADT) : 70 °C  
Method: UN-Test H.4  
SADT-Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction.

Refractive index : 1,429 at 20 °C

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable under recommended storage conditions.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Vapours may form explosive mixture with air.

### 10.4 Conditions to avoid

Conditions to avoid : Protect from contamination.  
Contact with incompatible substances can cause decomposition at or below SADT.  
Heat, flames and sparks.  
Avoid confinement.

### 10.5 Incompatible materials

Materials to avoid : Accelerators, strong acids and bases, heavy metals and heavy metal salts, reducing agents

### 10.6 Hazardous decomposition products

Irritant, caustic, flammable, noxious/toxic gases and vapours can develop in the case of fire and decomposition

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Not classified based on available information.

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### Components:

#### **di-tert-butyl 3,3,5-trimethylcyclohexylidene diperoxide:**

- Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 401  
Assessment: The substance or mixture has no acute oral toxicity
- Acute inhalation toxicity : LC50 (Rat): > 5,6 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 436  
Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

#### **2,2,4,6,6-pentamethylheptane:**

- Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg  
Method: OECD Test Guideline 401  
Assessment: The substance or mixture has no acute oral toxicity  
Remarks: Based on data from similar materials
- Acute inhalation toxicity : Remarks: No data available
- Acute dermal toxicity : LD50 Dermal (Rabbit): > 5.000 mg/kg  
Method: OECD Test Guideline 402

### **Skin corrosion/irritation**

Repeated exposure may cause skin dryness or cracking.

### Components:

#### **di-tert-butyl 3,3,5-trimethylcyclohexylidene diperoxide:**

- Species : Rabbit  
Method : OECD Test Guideline 404  
Result : No skin irritation

#### **2,2,4,6,6-pentamethylheptane:**

- Result : Repeated exposure may cause skin dryness or cracking.

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

Not classified based on available information.

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### Components:

#### **di-tert-butyl 3,3,5-trimethylcyclohexylidene diperoxide:**

Species : Rabbit  
Method : OECD Test Guideline 405  
Result : No eye irritation

#### **2,2,4,6,6-pentamethylheptane:**

Result : No eye irritation

### **Respiratory or skin sensitisation**

#### **Skin sensitisation**

Not classified based on available information.

#### **Respiratory sensitisation**

Not classified based on available information.

### Components:

#### **di-tert-butyl 3,3,5-trimethylcyclohexylidene diperoxide:**

Species : Guinea pig  
Method : OECD Test Guideline 406  
Result : Does not cause skin sensitisation.

### **Germ cell mutagenicity**

Not classified based on available information.

### Components:

#### **di-tert-butyl 3,3,5-trimethylcyclohexylidene diperoxide:**

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro  
Method: OECD Test Guideline 473  
Result: negative

Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative

Test Type: In vitro mammalian cell gene mutation test  
Method: OECD Test Guideline 476  
Result: negative

Genotoxicity in vivo : Remarks: No data available

#### **2,2,4,6,6-pentamethylheptane:**

Germ cell mutagenicity- Assessment : No known effect.

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### **Carcinogenicity**

Not classified based on available information.

### **Components:**

#### **di-tert-butyl 3,3,5-trimethylcyclohexylidene diperoxide:**

Species	:	Mouse
Application Route	:	Oral
Result	:	negative

#### **2,2,4,6,6-pentamethylheptane:**

Carcinogenicity - Assessment	:	No known effect.
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### **Reproductive toxicity**

Not classified based on available information.

### **Components:**

#### **di-tert-butyl 3,3,5-trimethylcyclohexylidene diperoxide:**

Effects on fertility	:	Remarks: No data available
Effects on foetal development	:	Species: Rat Application Route: oral (gavage) General Toxicity Maternal: NOAEL: 1.000 mg/kg body weight Method: OECD Test Guideline 414

#### **2,2,4,6,6-pentamethylheptane:**

Reproductive toxicity - Assessment	:	No known effect.
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### **STOT - single exposure**

Not classified based on available information.

### **STOT - repeated exposure**

Not classified based on available information.

### **Aspiration toxicity**

May be fatal if swallowed and enters airways.

### **Components:**

#### **2,2,4,6,6-pentamethylheptane:**

May be fatal if swallowed and enters airways.

### **Further information**

### **Product:**

Remarks	:	Solvents may degrease the skin.
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### Components:

#### **2,2,4,6,6-pentamethylheptane:**

Remarks : May cause headache and dizziness.

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

##### **di-tert-butyl 3,3,5-trimethylcyclohexylidene diperoxide:**

- Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 0,043 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
Remarks: No toxicity at the limit of solubility
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Remarks: No toxicity at the limit of solubility
- Toxicity to algae/aquatic plants : EC10 (Pseudokirchneriella subcapitata (green algae)): 0,11 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201  
Remarks: No toxicity at the limit of solubility
- Toxicity to microorganisms : EC50 (Bacteria): > 1.000 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,0128 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211  
Remarks: No toxicity at the limit of solubility

#### **Ecotoxicology Assessment**

Chronic aquatic toxicity : May cause long lasting harmful effects to aquatic life.

#### **2,2,4,6,6-pentamethylheptane:**

- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): > 0,04 mg/l  
Exposure time: 48 h  
Remarks: Information given is based on data obtained from similar substances.

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Toxicity to algae/aquatic plants : IC50 (algae): > 0,04 mg/l  
Exposure time: 72 h  
Remarks: Information given is based on data obtained from similar substances.

### Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.  
Chronic aquatic toxicity : May cause long lasting harmful effects to aquatic life.

### 12.2 Persistence and degradability

#### Components:

##### **di-tert-butyl 3,3,5-trimethylcyclohexylidene diperoxide:**

Biodegradability : Result: Biodegradable  
Method: OECD Test Guideline 301D

##### **2,2,4,6,6-pentamethylheptane:**

Biodegradability : Result: Not readily biodegradable.

### 12.3 Bioaccumulative potential

#### Components:

##### **di-tert-butyl 3,3,5-trimethylcyclohexylidene diperoxide:**

Bioaccumulation : Bioconcentration factor (BCF): 443

Partition coefficient: n-octanol/water : log Pow: 6,53

##### **2,2,4,6,6-pentamethylheptane:**

Partition coefficient: n-octanol/water : Remarks: 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..

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### 12.6 Other adverse effects

**Product:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
May cause long lasting harmful effects to aquatic life.

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## 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.  
Dispose of wastes in an approved waste disposal facility.

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.  
Dispose of in accordance with local regulations.

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## SECTION 14: Transport information

### 14.1 UN number

ADR : UN 3107  
RID : UN 3107  
IMDG : UN 3107  
IATA : UN 3107

### 14.2 UN proper shipping name

ADR : ORGANIC PEROXIDE TYPE E, LIQUID  
(1,1-DI-(tert-BUTYLPEROXY)-3,3,5-TRIMETHYLCYCLOHEXANE)

RID : ORGANIC PEROXIDE TYPE E, LIQUID  
(1,1-DI-(tert-BUTYLPEROXY)-3,3,5-TRIMETHYLCYCLOHEXANE)

IMDG : ORGANIC PEROXIDE TYPE E, LIQUID  
(1,1-DI-(tert-BUTYLPEROXY)-3,3,5-TRIMETHYLCYCLOHEXANE)

IATA : Organic peroxide type E, liquid  
(1,1-Di-(tert-butylperoxy)-3,3,5-trimethylcyclohexane)

### 14.3 Transport hazard class(es)

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**ADR** : 5.2  
**RID** : 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  
Tunnel restriction code : (D)

#### RID

Packing group : Not assigned by regulation  
Classification Code : P1  
Hazard Identification Number : 539  
Labels : 5.2

#### IMDG

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

#### IATA (Cargo)

Packing instruction (cargo aircraft) : 570  
Packing group : Not assigned by regulation  
Labels : Division 5.2 - Organic peroxides, Handling Label - Keep Away From Heat

#### IATA (Passenger)

Packing instruction (passenger aircraft) : 570  
Packing group : Not assigned by regulation  
Labels : Division 5.2 - Organic peroxides, Handling Label - Keep Away From Heat

### 14.5 Environmental hazards

#### ADR

Environmentally hazardous : no

#### RID

Environmentally hazardous : no

#### IMDG

Marine pollutant : no

### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data



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According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



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Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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

Not applicable for product as supplied.

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## SECTION 15: Regulatory information

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

KKDIK (30105 (Bis)) - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex 17) : Conditions of restriction for the following entries should be considered: Number on list 3

#### Other regulations:

Gefahrgruppe nach § 3 BGV B4: II (German regulatory requirements)

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".  
Regulation on Classification, Labelling and Packaging of Substances and Mixtures. Dated 11 December 2013, Numbered 28848 (Bis) Ministry of Environment and Forestry.

#### The components of this product are reported in the following inventories:

TCSI (TW) : On the inventory, or in compliance with the inventory

DSL (CA) : All components of this product are on the Canadian DSL

KECI (KR) : On the inventory, or in compliance with the inventory

PICCS (PH) : On the inventory, or in compliance with the inventory

IECSC (CN) : On the inventory, or in compliance with the inventory

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## SECTION 16: Other information

### Further information

Other information : This safety datasheet only contains information relating to safety and does not replace any product information or product specification.  
These safety instructions also apply to empty packaging which may still contain product residues.

Sources of key data used to : Internal technical data, data from raw material SDSs, OECD

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compile the Safety Data Sheet

eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

### Classification of the mixture:

Flam. Liq. 3	H226
Org. Perox. E	H242
Asp. Tox. 1	H304
Aquatic Chronic 4	H413

### Classification procedure:

Based on product data or assessment
Based on product data or assessment
Calculation method
Calculation method

### Full text of H-Statements

H226	: Flammable liquid and vapour.
H241	: Heating may cause a fire or explosion.
H304	: May be fatal if swallowed and enters airways.
H413	: May cause long lasting harmful effects to aquatic life.

### Full text of other abbreviations

Aquatic Chronic	: Long-term (chronic) aquatic hazard
Asp. Tox.	: Aspiration hazard
Flam. Liq.	: Flammable liquids
Org. Perox.	: Organic peroxides

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; 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; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International

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Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; 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

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.

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