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Substance key: 000000644278 Revision Date: 07/10/2018 Version: 2 - 1 / USA Date of printing:04/30/2019

#### **SECTION 1. IDENTIFICATION**

Identification of the Clariant Plastics & Coating USA LLC

4000 Monroe Road company:

Charlotte, NC, 28205

Telephone No.: +1 704 331 7000

Information of the substance/preparation:

Product Stewardship, +1-704-331-7710

Emergency tel. number: +1 800-424-9300 CHEMTREC

Trade name: AddWorks ATR 146

Material number: 298988

Primary product use: Stabilizer

**Chemical family:** AO and LS blends

## **SECTION 2. HAZARDS IDENTIFICATION**

GHS classification in accordance with 29 CFR 1910.1200

Serious eye damage Category 1

Skin sensitisation Category 1

**GHS** label elements

Hazard pictograms





Signal word Danger

Hazard statements H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

Precautionary statements Prevention:

> P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P272 Contaminated work clothing should not be allowed out of

the workplace.

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON

CENTER/doctor.



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P333 + P313 If skin irritation or rash occurs: Get medical advice/

attention.

P363 Wash contaminated clothing before reuse.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

Other hazards

No additional hazards are known except those derived from the labelling.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture Mixture

: AO and LS blends Substance name

## **Hazardous components**

Chemical name	CAS-No.	Concentration (% w/w)
Reaction mass of: 2,2,6,6- tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidin-4-yl- octadecanoate	Not Assigned	10 - 20

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

## **SECTION 4. FIRST AID MEASURES**

General advice Get medical advice/ attention if you feel unwell.

If inhaled Move the victim to fresh air.

> Give oxygen or artificial respiration if needed. Get immediate medical advice/ attention.

Never give anything by mouth to an unconscious person.

In case of skin contact Wash thoroughly with soap and water for 15 minutes. If skin

irritation occurs, seek medical attention.

In case of eye contact Flush eyes with water at least 15 minutes. Get medical

attention if eye irritation develops or persists.

If swallowed If conscious, give the victim plenty of water to drink.

Consult a physician.

Never give anything by mouth to an unconscious person.

Most important symptoms

and effects, both acute and

delayed

sensitising effects corrosive effects

May cause an allergic skin reaction. Causes serious eye damage.

Notes to physician : Treat symptomatically.



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#### **SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Foam

Water spray jet Dry powder

Unsuitable extinguishing

media

High volume water jet Carbon dioxide (CO2)

Specific hazards during

firefighting

Carbon oxides

Further information : Wear suitable protective equipment.

Special protective equipment

for firefighters

Wear personal protective equipment.

In the event of fire, wear self-contained breathing apparatus.

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

Wear suitable protective equipment.

Environmental precautions : The product should not be allowed to enter drains, water

courses or the soil.

Methods and materials for

containment and cleaning up

Take up mechanically

Take measures to prevent the build up of electrostatic charge. Treat recovered material as described in the section "Disposal

considerations".

### **SECTION 7. HANDLING AND STORAGE**

Advice on protection against

fire and explosion

Take precautionary measures against build-up of electrostatic

charges, e.g earthing during loading and off-loading

operations.

Keep away sources of ignition.

Dust may form explosive mixture in air.

Advice on safe handling : Avoid dust formation. Keep away from sources of ignition.

Lead off electrostatic charges.

Avoid inhalation, ingestion and contact with skin and eyes.

Wash thoroughly after handling.

Use personal protective equipment.

Avoid breathing dust.

Avoid contact with skin and eyes. Wash thoroughly after handling.

Store in a dry place.



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Keep away from heat. Store in original container. Keep container tightly closed.

Technical : Store in original container. measures/Precautions Keep container tightly closed.

Store in a cool, dry, well-ventilated area.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

### Hazardous components without workplace control parameters

Components	CAS-No.
Reaction mass of: 2,2,6,6-	Not Assigned
tetramethylpiperidin-4-yl-	
hexadecanoate and 2,2,6,6-	
tetramethylpiperidin-4-yl-	
octadecanoate	

**Engineering measures** : Use adequate exhaust ventilation and/or dust collection to

keep dust levels below exposure limits.

Personal protective equipment

Respiratory protection : Use NIOSH/MSHA approved respirators following

manufacturer's recommendations where dust or fume may be

generated.

Hand protection

Remarks : Nitrile rubber gloves. Minimum breakthrough time (glove): not

determined Minimum thickness (glove): not determined Take note of the information given by the producer concerning permeability and break through times, and of special

workplace conditions (mechanical strain, duration of contact).

Butyl Rubber, PVC Or Neoprene.

Eye protection : Safety glasses or chemical splash goggles.

Skin and body protection : Wear suitable protective equipment.

Protective measures : Observe the usual precautions for handling chemicals.

Hygiene measures : Wash hands before breaks and at the end of workday.

When using do not eat, drink or smoke.

Use protective skin cream before handling the product.



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Appearance : granules

Colour : white, to, pale yellow

Odour : odourless

Odour Threshold : not determined

pH : Not applicable

Melting point : 124 °C

Method: DSC

Boiling point : Not applicable

Flash point : Not relevant

Evaporation rate : not tested.

Flammability (solid, gas) : not determined

Self-ignition : Method: Expert judgement

The substance or mixture is not classified as pyrophoric.

Burning number : not determined

Upper explosion limit / upper

flammability limit

Not relevant

Lower explosion limit / Lower

flammability limit

Not relevant

Vapour pressure : Not applicable

Relative vapour density : not tested.

Relative density : no data available

Density : 0.987 g/cm3 (23 °C)

Method: ISO 1183

Solubility(ies)

Water solubility : insoluble (20 °C)

Solubility in other solvents : not tested.

Partition coefficient: n-

octanol/water

Not applicable

Auto-ignition temperature : Not relevant

Decomposition temperature : > 260 °C

Decomposition energy (mass): 190 kJ/kg



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Method: DSC

Viscosity

Viscosity, dynamic : Not relevant

Viscosity, kinematic : no data available

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

Method: Expert judgement

The product does not contain organic peroxide-groups which result from either the manufacturing process or from added

ingredients.

Dust explosion class : not capable of dust explosion

Particle size : 3 - 5 mm

Method: ISO 13320-1

## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : See section 10.3. "Possibility of hazardous reactions"

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous

reactions

The substance or mixture does not emit flammable gases in

contact with water.

Not corrosive to metals

Conditions to avoid : None known.

Incompatible materials : not known

Hazardous decomposition

products

When handled and stored appropriately, no dangerous

decomposition products are known

The product does not contain any chemical groups which suggest self-reactive properties, nor is the estimated SADT less than 75 °C, nor is the exothermic decomposition energy

higher than 300 J/g.

### **SECTION 11. TOXICOLOGICAL INFORMATION**

## Information on likely routes of exposure

Eye contact Skin contact

#### Acute toxicity

**Product:** 

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

Method: Calculation method

Remarks: not tested.



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Acute inhalation toxicity : Remarks: not tested.

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

Remarks: not tested.

## **Components:**

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate:

Acute oral toxicity : LD50 (Rat, male and female): > 10,000 mg/kg

Method: OECD Test Guideline 401

GLP: no

Acute inhalation toxicity : LC50 (Rat): > 0.005 mg/l, > saturated vapor

Exposure time: 7 h
Test atmosphere: vapour

Remarks: No adverse effect has been observed in acute

toxicity tests.

Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Method: OECD Test Guideline 402

GLP: no data available

#### Skin corrosion/irritation

## **Product:**

Remarks: not tested.

## **Components:**

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate:

Species: Rabbit Exposure time: 4 h Assessment: non-irritant

Method: OECD Test Guideline 404

Result: No skin irritation

GLP: yes

## Serious eye damage/eye irritation

## Product:

Result: Risk of serious damage to eyes.

Remarks: not tested.



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### Components:

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate:

Species: Rabbit

Result: Risk of serious damage to eyes.

Exposure time: 24 h Assessment: irritating

Method: OECD Test Guideline 405

GLP: yes

## Respiratory or skin sensitisation

#### **Product:**

Result: May cause sensitisation by skin contact.

Remarks: not tested.

## Components:

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate:

Test Type: Guinea pig maximization test

Species: Guinea pig

Method: OECD Test Guideline 406

Result: May cause sensitization by skin contact.

GLP: ves

Assessment: Causes serious eye damage.

May cause an allergic skin reaction.

## Germ cell mutagenicity

#### **Product:**

Germ cell mutagenicity -

: No information available.

Assessment

## Components:

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate:

Genotoxicity in vitro : Test Type: Ames test

Test system: Salmonella typhimurium Concentration: 8 - 5000 µg/plate

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative GLP: yes

Test Type: Cytogenetic assay

Test system: V79 cells (embryonic lung fibroblasts) of the

Chinese hamster



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Concentration: 1 - 40 µg/l

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative GLP: yes

Test Type: Mammalian cell gene mutation assay

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative GLP: yes

Germ cell mutagenicity -

Assessment

: In vitro tests did not show mutagenic effects

## Carcinogenicity

**Product:** 

Carcinogenicity -

Assessment

: No information available.

## Components:

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6tetramethylpiperidin-4-yl-octadecanoate:

Carcinogenicity -

Assessment

: No information available.

**IARC** Not listed

**OSHA** Not listed

**NTP** Not listed

#### Reproductive toxicity

## Components:

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6tetramethylpiperidin-4-yl-octadecanoate:

Effects on fertility Test Type: Two-generation study

Species: Rat

Dose: 25 - 125 - 250 mg/kg

General Toxicity - Parent: NOAEL: > 125 - 250 mg/kg body

General Toxicity F1: NOAEL: 250 mg/kg body weight

Method: OECD Test Guideline 416

Effects on foetal development

Remarks: Based on available data, the classification criteria

are not met.

Reproductive toxicity -: No evidence of adverse effects on sexual function and fertility,



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Assessment or on development, based on animal experiments.

#### STOT - single exposure

#### **Components:**

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

## STOT - repeated exposure

#### **Components:**

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate:

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### Repeated dose toxicity

#### **Product:**

Remarks: not tested.

### **Components:**

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate:

Species: Rat, male and female

NOAEL: 40 mg/kg

Application Route: oral (gavage) Exposure time: 28 days

Dose: 40 - 200 - 1000 mg/kg

Group: yes

Method: OECD Test Guideline 407

GLP: yes

Repeated dose toxicity - : Causes serious eye damage.

Assessment

## Aspiration toxicity

## Components:

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate:

No aspiration toxicity classification

### Experience with human exposure

#### **Product:**

General Information : The possible symptoms known are those derived from the



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labelling (see section 2).

## **SECTION 12. ECOLOGICAL INFORMATION**

## **Ecotoxicity**

**Product:** 

Toxicity to fish

Remarks: not tested.

Toxicity to daphnia and other :

aquatic invertebrates

Remarks: not tested.

Toxicity to algae

Remarks: not tested.

Toxicity to microorganisms : Remarks: not tested.

#### **Components:**

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 0.14 - < 0.25 mg/l

Exposure time: 96 h
Test Type: semi-static test
Analytical monitoring: yes

Method: OECD Test Guideline 203

GLP: yes

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.1068 mg/l

Exposure time: 48 h Test Type: static test Analytical monitoring: yes

Method: OECD Test Guideline 202

GLP: yes

NOEC (Daphnia magna (Water flea)): 0.0228 mg/l

Exposure time: 48 h Test Type: static test Analytical monitoring: yes

Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l

(nominal)

End point: Growth rate Exposure time: 72 h Analytical monitoring: yes

Method: OECD Test Guideline 201

GLP: yes

Remarks: The product was tested above its maximum

solubility.



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NOEC (Desmodesmus subspicatus (green algae)): 100 mg/l

(nominal)

End point: Growth rate Exposure time: 72 h Analytical monitoring: yes

Method: OECD Test Guideline 201

GLP: yes

Remarks: The product was tested above its maximum

solubility.

Toxicity to fish (Chronic

toxicity)

Remarks: no data available

Toxicity to daphnia and other :

aquatic invertebrates (Chronic toxicity)

NOEC (Daphnia magna (Water flea)): 0.054 mg/l

End point: Reproduction rate

Exposure time: 21 d

Method: OECD Test Guideline 202

Toxicity to microorganisms : EC50 (activated sludge, domestic): > 1,000 mg/l

Exposure time: 3 h Test Type: aquatic

Method: OECD Test Guideline 209

GLP: ves

Remarks: The product was tested above its maximum

solubility.

NOEC (activated sludge, domestic): 636 mg/l

Exposure time: 3 h Test Type: aquatic

Method: OECD Test Guideline 209

GLP: yes

Remarks: The product was tested above its maximum

solubility.

Toxicity to soil dwelling

organisms

Remarks: Not applicable

Plant toxicity : Remarks: Not applicable

Sediment toxicity : Remarks: Not applicable

Toxicity to terrestrial

organisms

Remarks: Not applicable

## Persistence and degradability

**Product:** 

Biodegradability : Remarks: This property is substance-specific and therefore

cannot be given for the preparation.



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### **Components:**

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate:

Biodegradability : aerobic

Biochemical oxygen demand Result: Readily biodegradable. Biodegradation: 100 % Exposure time: 28 d

Method: OECD Test Guideline 301C

aerobic

Inoculum: activated sludge, domestic

Concentration: 3 mg/l

DOC decrease

Result: Not readily biodegradable.

Biodegradation: 35.6 % Exposure time: 28 d

Method: OECD Test Guideline 301D

GLP: yes

Physico-chemical

removability

Remarks: Biodegradable

Stability in water : Test Type: abiotic

Degradation half life (Desalinated water, pH 7): < 2 d (20 °C)

pH: 7

Hydrolysis: at20 °C Method: Other GLP: no

## Bioaccumulative potential

**Product:** 

Bioaccumulation : Remarks: not available

### Components:

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate:

Bioaccumulation : Remarks: Due to the distribution coefficient n-octanol/water,

accumulation in organisms is possible.

Partition coefficient: n- : log Pow: 8.92 (20 °C)

octanol/water Method: Calculation Hansch/Leo

### Mobility in soil

## **Components:**

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate:

Distribution among : Remarks: no data available



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environmental compartments

Other adverse effects

**Product:** 

Environmental fate and

pathways

: Remarks: no data available

Additional ecological

information

This information is not available.

Components:

Reaction mass of: 2,2,6,6-tetramethylpiperidin-4-yl-hexadecanoate and 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate:

Environmental fate and

pathways

no data available

Results of PBT and vPvB

assessment

This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not

considered to be very persistent and very bioaccumulating

(VPVB).

Additional ecological

information

The product should not be allowed to enter drains, water

courses or the soil.

## **SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal methods

RCRA - Resource

Conservation and Recovery

Authorization Act

This product, if discarded as sold, is not a Federal RCRA

hazardous waste.

Waste Code : none

Waste from residues : Small quantities may be treated in aerobic wastewater

treatment systems. Larger quantities may be incinerated or

landfilled after solidification in permitted systems.

Contaminated packaging : Packaging that cannot be cleaned should be disposed of as

product waste

### **SECTION 14. TRANSPORT INFORMATION**

**DOT** not restricted

IATA

Proper shipping name: Environmentally hazardous substance, solid, n.o.s.

Class: 9
Packing group: III



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UN/ID number: UN 3077

Primary risk: 9

Remarks: Shipment permitted

Hazard inducer(s): 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate

**IMDG** 

Proper shipping name: Environmentally hazardous substance, solid, n.o.s.

Class: 9

Packing group:

UN no.: UN 3077

Primary risk: 9

Hazard inducer(s): 2,2,6,6-tetramethylpiperidin-4-yl-octadecanoate

Marine pollutant: Marine Pollutant EmS: F-A S-F

#### **SECTION 15. REGULATORY INFORMATION**

## EPCRA - Emergency Planning and Community Right-to-Know Act

## **CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Serious eye damage or eye irritation

Respiratory or skin sensitisation

SARA 313 : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

## **Clean Water Act**

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

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

TSCA : On TSCA Inventory, All components are compliant with the

TSCA Inventory Notification (Active) rule.



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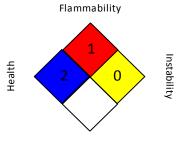
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#### **SECTION 16. OTHER INFORMATION**

#### **Further information**

NFPA:



Special hazard.

#### Full text of other abbreviations

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; NZloC - 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



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Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

On the basis of an extensive test program, which had to be submitted to the competent authority on the occasion of the Notification of the substance in the European Community, this product was found to be toxicologically not dangerous within the meaning of the EC Directives.

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