

Product Brand Name: NOVIPER DH 45

**CREATION DATE:** 2009.01.07 **PAGE:** 1 of 6

**LAST REVISION:** 2012.09.03

### 1. IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND OF THE COMPANY/UNDERTAKING

Product chemical name: NOVIPER DH 45

2,5-Dimethyl-2,5-di(tert.butylperoxy)hexane 45%, in silicone rubber

Industrial chemical, cross-linking agent

Manufacturer: NOVICHEM Sp. z o.o.

ul. Główna 4

41-503 CHORZÓW

**POLAND** 

tel./fax. +48-32-245 97 35 novichem@novichem.pl

NFPA Rating: NFPA 432 – Organic Peroxide Classification: Class III

HMIS Classification: Health: 1 Flammability: 2 Reactivity: 2

**Emergency telephone:** CHEMTREC: (800) 424-9300

Outside USA - (703) 527-3887 collect calls accepted

**Emergency Overview:** White Paste. Slight odor. Reactive to temperature above 194°F (90°C)

may cause violent decomposition. May cause skin irritation.

### 2. HAZARDS IDENTIFICATION

2,5-Dimethyl-2,5-di(tert.butylperoxy)hexane 45%, in silicone rubber		
Classification according to (WE) No 1272/2008		
Org. Perox. E	H242	Heating may cause a fire
Skin Corr. 1B	H315	Causes skin irritation
Classification according to 67/548/FWG		

#### Classification according to 67/548/EWG

Symbols: O – oxidizing

Xi – irritant

R-phrases: R7 – may cause fire

R36/38 - irritating to eyes and skin

## Labelling:



GHS07

GHS02

Signal word: WARNING

Hazard statement:

H242 Heating may cause a fire H315 Causes skin irritation

Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking

P234 Keep only in original container.



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P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Immerse in cool water/wrap in wet bandages
P332+P313 If skin irritation or rash occurs: Get medical advice/attention.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name of the preparation 2,5-Dimethyl-2,5-di(tert.butylperoxy)hexane 45%, paste in silicone rubber

Chemical nature of the preparation Organic peroxide 45% paste, diluted in silicone rubber

Hazardous components 2,5-Dimethyl-2,5-di(tert.butylperoxy)hexane ca. 45%w/w

**CAS-number** 78-63-7 **EINECS number** 201-128-1

 WE No
 Org. Perox. D, Flam Liq.3; Skin Corr. 1B, H242, H226, H315

 67/548/EWG
 O; Xi; R7; R36/38

Other components: silicone rubber ca. 55%w/w

not classified

## 4. FIRST AID MEASURES

General advice In case of contamination take off contaminated clothing immediately and

remove from exposure. If you don't feel well seek medical advice.

First aid

**Inhalation** Remove to fresh air. Call a physician immediately.

**Skin** Wash all contaminated areas with plenty of water.

Take off contaminated clothing immediately.

Use soap to help complete removal of contamination. Isolate contaminated clothing

when removal to prevent contact by others.

Eyes Flush eyes elaborately with plenty of water immediately. Seek medical attention.

**Ingestion** Rinse mouth with water. Do NOT induce vomiting. Do not give anything by mouth to an

unconscious person. Call a physician immediately.

### 5. FIRE-FIGHTING MEASURES

**Extinguishing media** Waterspray, foam, dry chemical powder, carbon dioxide.

Unsuitable extinguishing

media High volume water jet, halones

Hazardous decomposition/combustion products Carbon dioxide, carbon monoxide, methane, tert-butanol, acetone,

tert-amyl alcohol, ethane.



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Specific hazards during fire fighting

Generation of heat will further increase rate of decomposition.

CAUTION: re-ignition may occur

In case of fire, product will support combustion. Gaseous decomposition products may

form explosive mixtures with air. Do not inhale fumes.

**Protective equipment** Wear suitable fire resistant protective clothing.

Wear approved respirator and protective gloves.

the drainage system. Extinguish a small fire with powder or carbon dioxide then apply water to prevent re-ignition. Cool containers with water. Water used to extinguish a fire

should not be allowed to enter the drainage system or water courses.

After fire, ventilate thoroughly the area and soak with water, clean the walls and metallic

surfaces.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions** Do not breathe dust. Avoid contact with eyes and skin.

Environmental precautions Collect in a clean container for reuse or disposal. Do not empty into drains or other

water cycling systems.

**Methods for cleaning up** Eliminate all sources of ignition, and do not generate flames or sparks.

Stop containers from leaking where possible. Collect the spilled product with e.g. vermiculite, while wearing personal protective equipment. and put it into a separate container for disposal. Avoid formation of dust and keep contents of waste containers

always wet. Flush surrounding area with large amounts of water and soap.

ignition

### 7. HANDLING AND STORAGE

**Handling** Strictly avoid sources of heat and ignition in the area of product handling. Do not unload

containers in the storage room. The handling area should be well ventilated.

Avoid shock and friction.

Fire and explosion Any sources of ignition like lightning matches or use of tools which can generate

sparks, smoking etc. must be avoided, as well as contact with incompatible materials

like reducing agents, heavy metal compounds, acids, and alkalies.

Storage requirements Store in accordance with local regulations. Store product in the temperature range of

5° to 30℃., in dry and well ventilated places, in appropriate distance of sources of heat. Do not allow direct sunlight and do not store together with incompatible

materials or dangerous goods.

Other information When using the product do not eat, drink or smoke. Wash hands thoroughly after

handling.

Treat working clothing separately from your private clothing.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls** Make sure that working area is well ventilated.



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**Personal protections** 

**Respiratory** Use short duration filter unit: Filter A

Hand Use appropriate protective gloves of synthetic rubber like neoprene or butyl-rubber

Eyes Use safety goggles or face protection.

Skin and body Use appropriate protective clothing

General hygiene Clean hands thoroughly immediately after handling the product and before eating

or drinking.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Paste Color White Odour Faint

Boiling point/range Not applicable, product decomposes

Flash point Not applicable

**Flammability** Decomposition products may be flammable

Explosive properties No

Explosion limits Not determined Oxidizing properties Yes

Active oxygen content 4,85-5,07% SADT 4,85-6,07% ca.  $90^{\circ}$ C  $(194^{\circ}$ F)

**Bulk density** ca.  $600 \text{ kg/m}^3 (20^{\circ}\text{C} - 86^{\circ}\text{F}))$ 

Solubility in water Insoluble

Solubility in other solvents Soluble in most organic solvents

pH value Neutral
Viscosity Not applicable

#### 10. STABILITY AND REACTIVITY

Stability When reaching or exceeding the SADT (Self Accelerating Decomposition

Temperature) a dangerous self-accelerating decomposition reaction can occur,

which can lead to an explosion or fire.

**Conditions to avoid** Any sources of heat and ignition. Avoid shock and friction.

Do not allow for welding work in direct vicinity. Keep away from reducing agents (e.g. amines), acids, alkalis and heavy metals compounds (e.g. accelerators,

driers, metal salts). Avoid impurities (e.g. rust, dust, ash).

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

Hazardous decomposition

**products** Ethane, methane, tert-amyl alcohol, tert-butyl alcohol, acetone.

Thermal decomposition ca. +90°C (194°F)

### 11. TOXICOLOGICAL INFORMATION

There are no experimental toxicological data available on the preparation as such. The data shown below refer to the ingredients of the paste:

## 2,5-Dimethyl-2,5-di(tert.butylperoxy)hexane, 90%

Acute toxicity

 Oral LD50
 Rat :> 2000 mg/kg

 Dermal LD50
 Rat :> 2000 mg/kg

Rabbit: 2800 - 5400 mg/kg



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Irritation

SkinSeverely irritatingEyeModerately irritatingSensitizationNo sensitizer

Genotoxicity Ames test: not mutagenic

### 12. ECOLOGICAL INFORMATION

No experimental ecological data on the preparation as such available.

### 13. DISPOSAL CONSIDERATIONS

According to local disposal regulations.

#### 14. TRANSPORT INFORMATION

### **Land transport:**

<u>ADR</u>

Class: 5.2
Packaging group: II
Classification code: P1
UN No.: 3108

Description of the goods: ORGANIC PEROXIDE TYPE E, SOLID (2,5-Dimethyl-2,5-di(tert.butylperoxy)hexane)

Label:



Label No 5.2

**RID** 

Class: 5.2
Packaging group: II
Classification code: P1
UN No.: 3108

Description of the goods: ORGANIC PEROXIDE TYPE E, SOLID (2,5-Dimethyl-2,5-di(tert.butylperoxy)hexane)

Label: 5.2

Sea transport

IMDG:

 Class:
 5.2

 UN-No:
 3108

 EmS:
 F-J S-R

 Marine pollutant:
 No

Proper technical name: ORGANIC PEROXIDE TYPE E, SOLID (2,5-Dimethyl-2,5-di(tert.butylperoxy)hexane)

Air transport

ICAO/IATA:

Class: 5.2 UN-No: 3108

Proper technical name: ORGANIC PEROXIDE TYPE E, SOLID (2,5-Dimethyl-2,5-di(tert.butylperoxy)hexane)



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### 15. REGULATORY INFORMATION

Chemical description 2,5-Dimethyl-2,5-di(tert.butylperoxy)hexane 45%, paste in silicone rubber

**Labelling** 

GHS02 GHS07

Signal word: WARNING

Hazard statement:

H242 Heating may cause a fire H315 Causes skin irritation

Precautionary statements:

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P234 Keep only in original container.

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disclaims any liability for loss or damage resulting from the use of these data, information or suggestions.

### International Inventories (2,5-Dimethyl-2,5-di(tert.butylperoxy)hexane)

USA TSCA Inventory Status: Listed
New Jersey Right-to Know List: Listed

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

H226 Flammable liquid and vapour
H242 Heating may cause a fire
H315 Causes skin irritation
R7 May cause fire
R36/38 Irritating to eyes and skin

The information provided in this Safety Data Sheet is correct to the best of our knowledge at the date of its publication. This information is regarded as guidance for safe handling, use, processing, storage, transportation, disposal and release only. It has not to be considered as a warranty or quality specification. This information refers only to the specific material, which is described in this data sheet and not to any potential mixtures of this product with other materials, NOVICHEM Sp. z o.o.