

**Safety Data Sheet
RED PIGMENT****Revision nr. 5
Dated 18/08/2021****SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Mixture identification:

Product Name: RED PIGMENT
Code: DT40082, DT40097**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Only for industrial use. Pigment.

1.3. Details of the supplier of the safety data sheet

Name

Zhermack S.p.a
Via Bovazecchino 100
45021 Badia Polesine (RO)
Italy
tel. +39 0425-597611
fax +39 0425-597689

Competent person responsible for the safety data sheet:

msds@zhermack.com

1.4. Emergency telephone number

+39 0425 597611 (office hours)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

EC regulation criteria 1272/2008 (CLP)

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Hazard pictograms:

None

Hazard statements:

None

Precautionary statements:

None

Special Provisions:

EUH210 Safety data sheet available on request.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

PBT Substances:

>= 0,5% - < 1% octamethylcyclotetrasiloxane - REACH No.: 01-2119529238-36-XXXX,

Index number: 014-018-00-1, CAS: 556-67-2, EC: 209-136-7

>= 0,5% - < 1% Decamethylcyclopentasiloxane - D5 - REACH No.:

01-2119511367-43-0002, CAS: 541-02-6, EC: 208-764-9

>= 0,5% - < 1% Dodecamethylcyclohexasiloxane- D6 - REACH No.:

01-2119517435-42-0001, CAS: 540-97-6, EC: 208-762-8

vPvB Substances:

>= 0,5% - < 1% octamethylcyclotetrasiloxane - REACH No.: 01-2119529238-36-XXXX,

Index number: 014-018-00-1, CAS: 556-67-2, EC: 209-136-7

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>= 0,5% - < 1% Decamethylcyclopentasiloxane - D5 - REACH No.:
01-2119511367-43-0002, CAS: 541-02-6, EC: 208-764-9
>= 0,5% - < 1% Dodecamethylcyclohexasiloxane- D6 - REACH No.:
01-2119517435-42-0001, CAS: 540-97-6, EC: 208-762-8

Other Hazards:
No other hazards



SECTION 3: Composition/information on ingredients

3.1. Substances

Not Applicable

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 0,1% - < 1%	octamethylcyclotetrasiloxane	Index 014-018-00-1 number: CAS: 556-67-2 EC: 209-136-7 REACH No.: 01-21195292 38-36-XXXX	 3.7/2 Repr. 2 H361f 4.1/C4 Aquatic Chronic 4 H413  2.6/3 Flam. Liq. 3 H226
>= 0,1% - < 1%	Decamethylcyclopentasiloxane - D5	CAS: 541-02-6 EC: 208-764-9 REACH No.: 01-21195113 67-43-0002	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
>= 0,1% - < 1%	Dodecamethylcyclohexasiloxane- D6	CAS: 540-97-6 EC: 208-762-8 REACH No.: 01-21195174 35-42-0001	The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

SVHC Substances:

- >= 0,5% - < 1% octamethylcyclotetrasiloxane
REACH No.: 01-2119529238-36-XXXX, Index number: 014-018-00-1, CAS: 556-67-2,
EC: 209-136-7
Substance PBT and vPvB and SVHC
- >= 0,5% - < 1% Decamethylcyclopentasiloxane - D5
REACH No.: 01-2119511367-43-0002, CAS: 541-02-6, EC: 208-764-9
Substance PBT and vPvB and SVHC
- >= 0,5% - < 1% Dodecamethylcyclohexasiloxane- D6
REACH No.: 01-2119517435-42-0001, CAS: 540-97-6, EC: 208-762-8
Substance PBT and vPvB and SVHC

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

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Treatment:
None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non emergency personnel:

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene

Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

See section 10.5.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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OEL Type	TWA		Duration	STEL		Duration	Notes	Country
No data available								

octamethylcyclotetrasiloxane - CAS: 556-67-2

OEL Type	TWA		Duration	STEL		Duration	Notes	Country
No data available								

Decamethylcyclopentasiloxane - D5 - CAS: 541-02-6

OEL Type	TWA		Duration	STEL		Duration	Notes	Country
No data available								

Dodecamethylcyclohexasiloxane- D6 - CAS: 540-97-6

OEL Type	TWA		Duration	STEL		Duration	Notes	Country
No data available								

DNEL Exposure Limit Values

octamethylcyclotetrasiloxane - CAS: 556-67-2

Consumer: 13 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

Worker Professional: 73 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

Consumer: 3.7 mg/kg bw/d - Exposure: Human Oral - Frequency: Long Term, systemic effects

Consumer: 13 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Professional: 73 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Decamethylcyclopentasiloxane - D5 - CAS: 541-02-6

Consumer: 4.3 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

Worker Professional: 24.2 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

Consumer: 5 mg/kg bw/d - Exposure: Human Oral - Frequency: Long Term, systemic effects

Consumer: 17.3 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Professional: 97.3 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Dodecamethylcyclohexasiloxane- D6 - CAS: 540-97-6

Consumer: 1.5 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects

Consumer: 0.3 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

Worker Professional: 6.1 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects

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Worker Professional: 1.22 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

Consumer: 1.7 mg/kg bw/d - Exposure: Human Oral - Frequency: Short Term, systemic effects

Consumer: 1.7 mg/kg bw/d - Exposure: Human Oral - Frequency: Long Term, systemic effects

Consumer: 2.7 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Professional: 11 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

octamethylcyclotetrasiloxane - CAS: 556-67-2

Target: Fresh Water - Value: 0.0015 mg/l

Target: Marine water - Value: 1.5E-5 mg/l

Target: Freshwater sediments - Value: 3 mg/kg

Target: Marine water sediments - Value: 0.3 mg/kg

Target: Microorganisms in sewage treatments - Value: 10 mg/l

Target: Food chain - Value: 41 mg/kg

Target: Soil (agricultural) - Value: 0.54 mg/kg

Decamethylcyclopentasiloxane - D5 - CAS: 541-02-6

Target: Fresh Water - Value: 0.0012 mg/l

Target: Marine water - Value: 0.00012 mg/l

Target: Freshwater sediments - Value: 11 mg/kg

Target: Marine water sediments - Value: 1.1 mg/kg

Target: Microorganisms in sewage treatments - Value: 10 mg/l

Target: Food chain - Value: 16 mg/kg

Target: Soil (agricultural) - Value: 1.27 mg/kg

Dodecamethylcyclohexasiloxane- D6 - CAS: 540-97-6

Target: Freshwater sediments - Value: 13 mg/kg

Target: Marine water sediments - Value: 1.3 mg/kg

Target: Microorganisms in sewage treatments - Value: 1 mg/l

Target: Food chain - Value: 66.7 mg/kg

Target: Soil (agricultural) - Value: 3.77 mg/kg

8.2. Exposure controls**Precautionary measures:**

Give adequate ventilation to the premises where the product is stored and/or handled.

Eye protection:

Wear airtight protective goggles.

Protection for skin:

Wear professional overalls and safety footwear.

Protection for hands:

Protect hands with work gloves.

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

Respiratory protection:

Use respiratory protection where ventilation is insufficient or exposure is prolonged.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered (e.g. TLV-TWA).

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

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None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes
Appearance and colour:	Putty, red	--	--
Odour:	Characteristic	--	--
Odour threshold:	Not available	--	--
pH:	Not Relevant	--	--
Melting point / freezing point:	Not available	--	--
Initial boiling point and boiling range:	Not available	--	--
Flash point:	> 150 ° C	--	--
Evaporation rate:	Not Relevant	--	--
Solid/gas flammability:	Not available	--	--
Upper/lower flammability or explosive limits:	Not available	--	--
Vapour pressure:	Not available	--	--
Vapour density:	Not available	--	--
Relative density:	1.05 g/cm ³	--	--
Solubility in water:	Insoluble	--	--
Solubility in oil:	Not available	--	--
Partition coefficient (n-octanol/water):	Not available	--	--
Auto-ignition temperature:	Not available	--	--
Decomposition temperature:	Not available	--	--
Viscosity:	Not available	--	--
Explosive properties:	Not available	--	--
Oxidizing properties:	Not available	--	--

9.2. Other information

Properties	Value	Method:	Notes
Miscibility:	Not available	--	--
Fat Solubility:	Not available	--	--
Conductivity:	Not available	--	--
Substance Groups relevant properties	Not available	--	--

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

Acids

Alkalis

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10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the product:

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a) acute toxicity

Not classified

b) skin corrosion/irritation

Not classified

c) serious eye damage/irritation

Not classified

d) respiratory or skin sensitisation

Not classified

e) germ cell mutagenicity

Not classified

f) carcinogenicity

Not classified

g) reproductive toxicity

Not classified

h) STOT-single exposure

Not classified

i) STOT-repeated exposure

Not classified

j) aspiration hazard

Not classified

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

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Not classified for environmental hazards

Based on available data, the classification criteria are not met

octamethylcyclotetrasiloxane - CAS: 556-67-2

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia > 0.015 mg/l - Duration h: 48h (publication, GLP, Daphnia magna, ECHA dossier).

Endpoint: IC50 - Species: Algae > 0.022 mg/l - Duration h: 72h (EPA OTS 797.1050, Selenastrum capricornutum, freshwater, ECHA dossier).

Endpoint: LC50 - Species: Fish > 0.022 mg/l (publication, Oncorhynchus mykiss, ECHA dossier).

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Endpoint: NOEC - Species: Fish > 0.044 mg/l (publication, Oncorhynchus mykiss, GLP, ECHA dossier).

Decamethylcyclopentasiloxane - D5 - CAS: 541-02-6

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 0.0016 mg/l - Duration h: 96h (OECD 204, Oncorhynchus mykiss (Trotta iridea), SDS supplier).

Endpoint: EC50 - Species: Daphnia > 0.00029 mg/l - Duration h: 48h (OECD 202, Daphnia magna, SDS supplier).

Endpoint: EC50 - Species: Algae > 0.0012 mg/l - Duration h: 72h (OECD 201, Pseudokirchneriella subcapitata, SDS supplier).

Endpoint: NOEC - Species: Fish > 0.0014 mg/l (OECD 210, Oncorhynchus mykiss, SDS supplier).

Endpoint: NOEC - Species: Daphnia > 0.0015 mg/l (OECD 211, Daphnia magna, SDS supplier).

Dodecamethylcyclohexasiloxane- D6 - CAS: 540-97-6

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Algae > 0.002 mg/l - Duration h: 72h (Pseudokirchnerella subcapitata, ECHA dossier).

Endpoint: NOEC - Species: Algae > 0.002 mg/l (Pseudokirchnerella subcapitata, ECHA dossier).

12.2. Persistence and degradability

octamethylcyclotetrasiloxane - CAS: 556-67-2

Biodegradability: Non-readily biodegradable

Decamethylcyclopentasiloxane - D5 - CAS: 541-02-6

Biodegradability: Non-readily biodegradable

Dodecamethylcyclohexasiloxane- D6 - CAS: 540-97-6

Biodegradability: Non-readily biodegradable

12.3. Bioaccumulative potential

octamethylcyclotetrasiloxane - CAS: 556-67-2

Test: Kow - Partition coefficient 6.49 - Notes:)

(Log Pow, ECHA dossier).

12.4. Mobility in soil

Not available

12.5. Results of PBT and vPvB assessment

PBT Substances:

>= 0,5% - < 1% octamethylcyclotetrasiloxane - CAS: 556-67-2

>= 0,5% - < 1% Decamethylcyclopentasiloxane - D5 - CAS: 541-02-6

>= 0,5% - < 1% Dodecamethylcyclohexasiloxane- D6 - CAS: 540-97-6

vPvB Substances:

>= 0,5% - < 1% octamethylcyclotetrasiloxane - CAS: 556-67-2

>= 0,5% - < 1% Decamethylcyclopentasiloxane - D5 - CAS: 541-02-6

>= 0,5% - < 1% Dodecamethylcyclohexasiloxane- D6 - CAS: 540-97-6

12.6. Other adverse effects

None

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information**14.1. UN number**

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

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Not available

14.3. Transport hazard class(es)

Not available

14.4. Packing group

Not available

14.5. Environmental hazards

ADR-Environmental Pollutant: No

IMDG-Marine pollutant: No

14.6. Special precautions for user

Not available

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

Not Applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) 2015/830

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/699 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

No restriction.

Restrictions related to the substances contained:

Restriction 70

SVHC Substances:

Substances in candidate list (Art. 59 Reg. 1907/2006, REACH):

octamethylcyclotetrasiloxane

PBT, vPvB

Decamethylcyclopentasiloxane - D5

PBT, vPvB

Dodecamethylcyclohexasiloxane- D6

PBT, vPvB

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

WGK Classification (Water hazard class - Verwaltungsvorschrift wassergefährdende Stoffe)

WGK2 - Hazardous for water

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Lagerklasse according to TRGS 510:
LGK 10: Combustible liquids

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

California Proposition 65
Substance(s) listed under California Proposition 65:
None.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Full text of phrases referred to in Section 3:
H361f Suspected of damaging fertility.
H413 May cause long lasting harmful effects to aquatic life.
H226 Flammable liquid and vapour.

Hazard class and hazard category	Code	Description
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Repr. 2	3.7/2	Reproductive toxicity, Category 2
Aquatic Chronic 4	4.1/C4	Chronic (long term) aquatic hazard, category 4

This document was prepared by a competent person who has received appropriate training.
Main bibliographic sources:

ECHA – European Chemical Agency
GESTIS - Information system on hazardous substances of the German Social Accident Insurance
IARC – International Agency for Research on Cancer
IPCS INCHEM – International Programme on Chemical Safety
ISS – Istituto Superiore di Sanità
PubChem - open chemistry database at the National Institutes of Health (NIH)

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE: Acute Toxicity Estimate
ATEmix: Acute toxicity Estimate (Mixtures)
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CLP: Classification, Labeling, Packaging.
DNEL: Derived No Effect Level.
EINECS: European Inventory of Existing Commercial Chemical Substances.
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of

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	Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.