

MATERIAL: TECHSIL[®] ZEMREX C200

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

- 1.1 Product Name:** Techsil[®] Zemrex C200
1.2 Product Use: Silicone Elastomer
1.3 Supplier: Techsil Ltd
34 Bidavon Industrial Estate
Waterloo Road
Bidford on Avon
Warwickshire
B50 4JN
Tel: +44(0)1789 773232
Fax: +44(0)1789 774239
Email: sales@techsil.co.uk
- 1.4 Emergency Telephone:** +44(0)7971 228794

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture:

The product has been classified according to the legislation in force.

Health Hazards

Skin corrosion, Category 1C H314 Causes severe skin burns and eye damage.
Serious eye damage, Category 1 H318 Causes serious eye damage.

2.2 Label Elements:



Signal Words: Danger

Hazard Statement(s):

H314: Causes severe skin burns and eye damage.

Precautionary Statements:

Prevention:

P280: Wear protective gloves.

P282: Wear eye protection.

Response:

P302+P350: IF ON SKIN: Wash with plenty of soap and water.

P332+P313: If skin irritation occurs: Get medical advice/attention.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

Unknown toxicity - Health

Acute toxicity, inhalation, vapor 0%

Acute toxicity, inhalation, dust or mist 0%

Additional Information: No data available.

2.3 Other Hazards:

No data available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Mixture of polydimethylsiloxanes, fillers and cross-linkers.

Contact Details

Techsil Ltd
Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN
Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk
QF21 Rev 2 (June 2016)

3.2 Mixtures:

Methyltriacetoxysilane

Conc %	CAS-No.	EC No.	REACH Registration No.	M-Factor	Notes
5 - <10%	4253-34-3	224-221-9	01-2119962266-32-0000	No data available.	

di-tert-butoxydiacetoxysilane

Conc %	CAS-No.	EC No.	REACH Registration No.	M-Factor	Notes
1 - <3%	13170-23-5	236-112-3	No data available.	No data available.	

Acetic acid

Conc %	CAS-No.	EC No.	REACH Registration No.	M-Factor	Notes
0,1 - <1%	64-19-7	200-580-7	01-2119475328-30-XXXX	No data available.	#

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

This substance has workplace exposure limit(s).

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

Classification

Chemical name	Classification	Notes
Methyltriacetoxysilane	Acute Tox.: 4: H302Skin Corr.: 1C: H314Eye Dam.: 1: H318	No data available
di-tert-butoxydiacetoxysilane	Skin Corr.: 1B: H314Acute Tox.: 4: H302Eye Dam.: 1: H318No data available.	No data available
Acetic acid	Flam. Liq.: 3: H226 Skin Corr.: 1A: H314Eye Dam.: 1: H318	Note B

CLP: Regulation No. 1272/2008.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures:

General: Get medical attention if symptoms occur.

Inhalation: Move to fresh air. Get medical attention if any discomfort continues.

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

Skin Contact: After contact with skin, remove product mechanically. Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.

Ingestion: Rinse mouth. Do not induce vomiting. Consult a physician for specific advice.

4.2 Most Important Symptoms and Effects, both Acute and Delayed:

No data available.

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed:

No data available.

SECTION 5: FIREFIGHTING MEASURES

General Fire Hazards

Use standard firefighting procedures and consider the hazards of other involved materials. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

5.1 Extinguishing Media:

Suitable extinguishing media

All standard extinguishing agents are suitable.

Contact Details

Techsil Ltd

Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN

Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

QF21 Rev 2 (June 2016)

Unsuitable extinguishing media

Do not use water jet.

5.2 Special Hazards Arising from the Substance or Mixture:

No data available.

5.3 Advice for Fire-fighters:

Special fire-fighting procedures

Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or grounding procedures.

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective clothing. Use water spray to keep fire-exposed containers cool.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protective equipment. Wash skin thoroughly with soap and water. Keep container tightly closed and in a well-ventilated place. See Section 8 of the SDS for Personal Protective Equipment. Avoid contact with skin and eyes.

6.2 Environmental Precautions:

Do not allow runoff to sewer, waterway or ground.

6.3 Methods and Material for Containment and Cleaning-Up:

Shovel up and place in a container for salvage or disposal. Caution: Contaminated surfaces may be slippery.

6.4 Reference to Other Sections:

Prevent runoff from entering drains, sewers, or streams. Caution: Contaminated surfaces may be slippery.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

Acetic acid is formed during processing. Wear appropriate personal protective equipment. Product may charge electrostatically during pouring or filling. Use only in well-ventilated areas. Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Keep containers tightly closed.

7.2 Conditions for Safe Storage, Including and Incompatibilities:

Keep away from food, drink and animal feeding stuffs. Keep container tightly closed and in a well-ventilated place.

7.3 Specific End Use(s):

No data available.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters:

Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
Carbon Black	STEL	7 mg/m ³	UK. EH40 Workplace Exposure Limits (WELs) (12 2011)
	TWA	3,5 mg/m ³	UK. EH40 Workplace Exposure Limits (WELs) (12 2011)
Acetic acid	TWA	10 ppm 25 mg/m ³	EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU (12 2009)

Biological Limit Values

None.

8.2 Exposure Controls:

Appropriate Engineering Controls

Eyewash bottle with clean water. Use only in well-ventilated areas. Observe good industrial hygiene practices.

Individual protection measures, such as personal protective equipment

General information:

Eyewash bottle with clean water. Use only in well-ventilated areas.

When using do not eat, drink or smoke. Wash hands after handling.

Eye/face protection:

Safety glasses with side-shields conforming to EN166

Contact Details

Techsil Ltd

Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN

Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

QF21 Rev 2 (June 2016)

Skin protection

Hand Protection:	Advice: Protective gloves made of: Neoprene. Polyvinyl chloride (PVC). Nitrile rubber. Always ensure that gloves are free from defects and that they are stored and used correctly.
Other:	No data available.
Respiratory Protection:	Respirator with a vapour filter (EN 141) If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respiratory protection mask with Filtertype ABEK
Hygiene measures:	Avoid contact with eyes, skin, and clothing. Ensure adequate ventilation, especially in confined areas. Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke.
Environmental exposure controls:	No data available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

Physical state:	Solid
Form:	Paste
Color:	Black
Odor:	Acetic acid
Odor Threshold:	No data available.
pH:	No data available.
Melting Point:	No data available.
Boiling Point:	Not applicable
Flash Point:	No data available.
Evaporation Rate:	Not applicable
Flammability (solid, gas):	No data available.
Flammability Limit - Upper (%):	No data available.
Flammability Limit - Lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density (air=1):	No data available.
Density:	ca. 1,08 g/cm ³
Relative density:	No data available.
Solubility(ies)	
Solubility in Water:	No data available.
Solubility (other):	Insoluble
Partition coefficient (n-octanol/water) Log Pow:	No data available.
Autoignition Temperature:	No data available.
Decomposition Temperature:	Material is stable under normal conditions.
SADT:	
Viscosity, dynamic:	No data available.
Viscosity, kinematic:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

9.2 Other Information:

-

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No data available.

10.2 Chemical Stability:

Material is stable under normal conditions.

10.3 Possibility of Hazardous Reactions:

Under normal conditions of storage and use, hazardous polymerization will not occur.

Contact Details

Techsil Ltd
Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN
Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk
QF21 Rev 2 (June 2016)

10.4 Conditions to Avoid:

Reacts with water liberating small amounts of acetic acid.

10.5 Incompatible Materials:

Strong Acids, Strong Bases

10.6 Hazardous Decomposition Products:

Carbon oxides Oxides of silicon. Acetic acid. Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.

SECTION 11: TOXICOLOGICAL INFORMATION

General information

Our Experience shows that our Silicone Elastomer products can be handled without risk to health if used properly and if the usual precautions for industrial hygiene are observed.

Information on likely routes of exposure

Inhalation: No data available.
Ingestion: No data available.
Skin Contact: No data available.
Eye contact: No data available.

11.1 Information on Toxicological Effects:

Acute toxicity

Oral

Product: LD 50 (Rat): 4.800 mg/kg (OECD-Guideline 401
(Acute Oral Toxicity))
Specified substance(s)
Methyltriacetoxysilane LD 50 (Rat): 1.830 mg/kg
LD 50 (Rat): 1.550 mg/kg
di-tert-butoxydiacetoxysilane LD 50 (Rat): 1.400 mg/kg
Acetic acid LD 50 (Rat): 3.310 mg/kg

Dermal

Product: LD 50 (Rat, male and female): 2.400 mg/kg (OECD-Guideline 402
(Acute Dermal Toxicity))
Specified substance(s)
Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid LD 50 (Rabbit): 1.060 mg/kg

Inhalation

Product: LC50 (Rat, male and female, 4 h): 36 mg/l (OECD Test Guideline 403)
Not classified for acute toxicity based on available data.
Specified substance(s)
Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid TDLo (Rat, 4 h): 16 mg/l

Repeated dose toxicity

Product: NOAEL (Rat(male and female), Inhalation(vapour)): 150 mg/kg (OECD
453)
NOAEL (Rabbit(male and female), Dermal): 1 mg/kg (OECD 410)
Specified substance(s)
Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid No data available.

Contact Details

Skin Corrosion/Irritation:

Product: OECD-Guideline 404 (Acute Dermal Irritation/Corrosion) (Rat): No skin irritation

Specified substance(s)

Methyltriacetoxysilane OECD-Guideline 404 (Acute Dermal Irritation/Corrosion) (Rabbit): Corrosive

di-tert-butoxydiacetoxysilane OECD Test Guideline 404 (Rabbit): Causes burns. The health hazard evaluation is based on the toxicological properties of a similar material.

Acetic acid (Rabbit): Corrosive

Serious Eye Damage/Eye

Product: OECD-Guideline 405 (Acute Eye Irritation/Corrosion) (Rabbit): No eye irritation

Specified substance(s)

Methyltriacetoxysilane OECD-Guideline 405 (Acute Eye Irritation/Corrosion) (Rabbit): Corrosive

di-tert-butoxydiacetoxysilane (Rabbit): Strongly irritating.

Acetic acid No data available. (Rabbit): Corrosive

Respiratory or Skin Sensitization: Not a skin sensitizer.

Product: , OECD-Guideline 406 (Skin Sensitisation)negative

Specified substance(s)

Methyltriacetoxysilane No data available.

di-tert-butoxydiacetoxysilane No data available.

Acetic acid No data available.

Germ Cell Mutagenicity

In vitro

Product: Ames-Test (OECD-Guideline 471 (Genetic Toxicology: Salmonella typhimurium, Reverse Mutation Assay)): negative (not mutagenic)
Mouse Lymphoma Assay (OECD Guideline 476): negative (not mutagenic)

Specified substance(s)

Methyltriacetoxysilane No data available.

di-tert-butoxydiacetoxysilane No data available.

Acetic acid No data available.

In vivo

Product: Chromosomal aberration (OECD-Guideline 474 (Genetic Toxicology: Micronucleus Test)): negative

Specified substance(s)

Methyltriacetoxysilane No data available.

di-tert-butoxydiacetoxysilane No data available.

Acetic acid No data available.

Carcinogenicity

Product: No data available.

Specified substance(s)

Methyltriacetoxysilane No data available.

di-tert-butoxydiacetoxysilane No data available.

Acetic acid No data available.

Reproductive toxicity

Product: No data available.

Specified substance(s)

Methyltriacetoxysilane No data available.

di-tert-butoxydiacetoxysilane No data available.

Acetic acid No data available.

Contact Details

Specific Target Organ Toxicity - Single Exposure

Product: No data available.
Specified substance(s)
Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.
Specified substance(s)
Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid No data available.

Aspiration Hazard

Product: No data available.
Specified substance(s)
Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid No data available.

Other effects: No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

Acute toxicity

Fish

Product: No data available.
Specified substance(s)
Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid LC50 (Lepomis macrochirus, 96 h): 75 mg/l (No data available.)
LC0 (Leuciscus idus): 368 mg/l (No data available.)
LC100 (Leuciscus idus): 452 mg/l (No data available.)
LC50 (Leuciscus idus, 48 h): 410 mg/l (No data available.)
LC50 (Pimephales promelas, 96 h): 88 mg/l (No data available.)

Aquatic Invertebrates

Product: EC50 (Daphnia magna, 48 h): > 0,015 mg/l
Specified substance(s)
Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid LC0 (Daphnia magna): 150 mg/l (No data available.)
EC50 (Daphnia magna, 24 h): 95 mg/l (No data available.)

Chronic Toxicity

Fish

Product: LC50 (Oncorhynchus mykiss, 14 d): 0,01 mg/l
Specified substance(s)
Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid No data available.

Contact Details

Aquatic Invertebrates

Product: EC50 (Daphnia magna, 21 d): > 0,015 mg/INOAEL (Rabbit(male and female), Dermal): 1 mg/kg (OECD 410)

Specified substance(s)

Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s)

Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid No data available.

12.2 Persistence and Degradability:

Biodegradation

Product: Activated sludge (adaptation not specified) (29 d, OECD Test Guideline 310): 3,7 % The product is not readily biodegradable.

Specified substance(s)

Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid Biological degradability (5 d, No data available.): 60 %

BOD/COD Ratio

Product: No data available.

Specified substance(s)

Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid No data available.

12.3 Bioaccumulative Potential:

Product: Pimephales promelas, Bioconcentration Factor (BCF): 12,40 May accumulate in soil and water systems.

Specified substance(s)

Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid No data available.

12.4 Mobility in Soil:

No data available.

Known or predicted distribution to environmental compartments

Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid No data available.

12.5 Results of PBT and vPvB Assessment:

No data available.

Methyltriacetoxysilane No data available.
di-tert-butoxydiacetoxysilane No data available.
Acetic acid No data available.

12.6 Other Adverse Effects:

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

General information

The generation of waste should be avoided or minimized wherever possible. See Section 8 for information on appropriate personal protective equipment. Do not discharge into drains, water courses or onto the ground.

Disposal methods

Can be incinerated when in compliance with local regulations.

Contact Details

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number:

ADR UN 1759
RID UN 1759
IMDG UN 1759
IATA UN 1759

14.2 UN Proper Shipping Name:

ADR CORROSIVE SOLID, N.O.S.(METHYLTRIACETOXYSILANE)
RID CORROSIVE SOLID, N.O.S.(METHYLTRIACETOXYSILANE)
IMDG CORROSIVE SOLID, N.O.S.(METHYLTRIACETOXYSILANE)
IATA CORROSIVE SOLID, N.O.S.(METHYLTRIACETOXYSILANE)

14.3 Transport Hazard Class(es):

ADR
Class: 8
Label(s): 8
Hazard No.: 80
Tunnel restriction code: (E)
RID
Class: 8
Label(s): 8
IMDG
Class: 8
Label(s): 8
EmS No.: F-A, S-B
IATA
Class: 8
Label(s): 8

14.4 Packing Group:

ADR III
RID III
IMDG III
Limited quantity
Excepted quantity
IATA III
Cargo aircraft only Packing Instructions: 864
Passenger and cargo aircraft Packing
Instructions:
Limited quantity: Y841
Packing Instructions:
Excepted quantity

14.5 Environmental Hazards:

ADR Not regulated.
No
RID Not regulated.
No
IMDG Not regulated.
No
IATA Not regulated.
No

14.6 Special Precautions for User:

Keep away from foodstuffs and animal feed.

14.7 Transport in Bulk According to Annex II of MARPOL73/78 and the IBC Code:

Not applicable

Contact Details

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health & Environmental Regulations/Legislation Specific for the Substance or Mixture:

EU Regulations

Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer: none

Regulation (EC) No. 850/2004 on persistent organic pollutants: none

Regulation (EC) No. 689/2008 Import and export of dangerous chemicals: none

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended: none

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use: none
Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.: none

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.: none

Directive 96/82/EC (Seveso III): on the control of major accident hazards involving dangerous substances: none

EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants: none

Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:

Chemical name	CAS-No.	Concentration
Acetic acid	64-19-7	0,1 - 1,0%

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out.

Inventory Status

Australia AICS: y (positive listing)

Remarks: None.

Canada DSL Inventory List: y (positive listing)

Remarks: None.

EU EINECS List: y (positive listing)

Remarks: None.

Japan (ENCS) List: y (positive listing)

Remarks: None.

China Inventory of Existing

Chemical Substances:

Korea Existing Chemicals Inv.

(KECI):

Canada NDSL Inventory: n (Negative listing)

Remarks: None.

Philippines PICCS: y (positive listing)

Remarks: None.

US TSCA Inventory: y (positive listing)

Remarks: On TSCA Inventory

New Zealand Inventory of

Chemicals: y (positive listing)

Remarks: None.

SECTION 16: OTHER INFORMATION

Key literature references and sources for data:

No data available.

Wording of the H-statements in section 2 and 3

H226 Flammable liquid and vapor.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

Classification according to Regulation (EC) No 1272/2008 as amended.

Skin Corr. 1C, H314

DISCLAIMER

This 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 other process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy themselves as to the suitability of such information for their particular use.

Contact Details

Techsil Ltd

Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN

Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

QF21 Rev 2 (June 2016)

10