

Dynamic Far East Limited

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Dynamic 104 Neutral Silicon Sealant Product Data Sheet



1. Description

Dynamic 104 Neutral Silicone Sealant is a non-odor, non-flowing, one component silicone RTV rubber compound usually used for electrical insulating sealing, and for sealing materials in vehicles, ships, aircrafts, glass, tiles, bath tubs, sanitary equipment's, etc.

2. Features

- 100% Silicone rubber.
- Excellent electrical properties. Suitable as insulation sealing for electrical and electronic, equipment.
- Excellent resistance to weathering, ultra-violet, moisture, ozone, temperature extremes, airborne pollutant and many solvents.
- Long-life reliability: cured sealant stays rubbery from -62 °C to +240 °C without tearing, cracking, drying out and becoming brittle.
- Non-slumping: can be used in vertical and overhead joints.
- Choice of colours: White, translucent, black, grey, ivory, beige, etc.

3. Typical Properties

Type	One Part Silicone Sealant
Sag or Slump	NIL
Specific gravity	1.04
Tack-Free time (At 25 °C & 50% R.H.)	10 to 20 mins
Curing time (At 25 °C & 50% R.H., 3.18mm thickness)	24 hours
Hardness (Shore A)	30 (ASTMD2240)
Tensile strength	350psi (ASTM D412)
Movement capability	+25% of original 1/8 joint width
Peel strength	20 ppi (ASTM C794)
Performance	-62 °C to 240 °C Temperature Range
Elongation at break	500% (ASTM D412)

(Test results complied with requirement of BS5889:1989)

4. Limitations

- Do not use for structural glazing.
- Not recommended for continuous water immersion.
- Not recommended for use on polycarbonate plastic sheeting.
- Cannot be painted as paint will not adhere to sealant.
- Should not be applied to materials that bleed oils, plasticizers or solvents such as impregnated wood or oil-based caulks, or release by-products that may inhibit its cure, affect adhesion or discolored the sealant.
- Should not be used as an interior penetration fire stop sealing system.
- Should not be applied to surface in direct contact with food.

- Not recommended for use in closed or confined areas where sealant cure may be inhibited.

5. Storage and Shelf life

Store in original unopened containers in a cool dry place below +30 °C. Use within six months from date of purchase. Previously opened cartridges may be used by simply removing the cured plug of sealant from the nozzle.

6. Packaging

Supplied in 300ml standard plastic cartridge which fit ordinary caulking guns.

7. How To Use

- Correct joint design minimizes stresses on the sealant, enables optimum sealant movement capability, facilitates sealant application and minimizes the potential for sealant splitting and voiding by enabling cure by-products to exit from the joint.
- Clean all joint surfaces, Substrate surface must be completely clean, dry and sound. Completely remove any loose debris or old sealant.
- For non-porous surfaces such as glass and painted aluminum, use solvent such as methyl ethyl ketone or white spirits to remove any oils and contaminates.
- Install backing material. Backer rod (ie: closed cell polyethylene) or similar material (ie: low tack polyethylene tape for shallow joints) can be used in the base of the joint to control sealant depth and avoid 3 sided adhesion by preventing adhesion to the base of the joint.
- Mask adjacent surfaces with masking tape.
- Place cartridge in caulking gun. Air-operated or hand-operated caulking guns can be used.
- Push the sealant ahead of the nozzle, rather than pulling it. Apply sealant into the base of the joint so that it completely fills the joint under its own weight
- Tool the surface of the joint to ensure a smooth even finish and to ensure the sealant wets the sides of the joint.
- Tooling should be completed in one continuous stroke before the sealant forms a skin. A tool with a convex profile is recommended to keep the sealant within the joint. When sealing horizontal joints, tool the sealant so that precipitation and cleaning solutions will not pool.
- Do not use soap or water as tooling aids.
- Remove masking tape immediately after tooling and before the sealant skins.
- After a skin has formed, do not disturb the joint for 48 hours.
- Uncured sealant may be cleaned from tools using commercial solvents such as xylene, toluene or ethyl ethyl ketone. Observe proper precautions when using flammable solvents. On porous surfaces allow sealant to cure before removing by abrasion. Cured sealant is not soluble and must be trimmed with a blade, avoid undercutting the seal.

8. Maintenance

No maintenance is needed. If sealant becomes damaged, replace required portion. Sealant will adhere to cured silicone sealant with only a preparatory solvent wipe to remove accumulated dirt.

9. Health and Safety

Full product safety information required for safe use is not included. Before handling, read materials safety data sheet and container label for safe use, physical and health hazard information. Avoid continuous exposure to skin. Keep good ventilation when applying the sealant. Wash with water in case of contact with eye & visit doctor.



MSDS

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Service Requested 所需服務

Material Safety Data Sheet for the Product 化學品安全技術說明書

Client's name 客戶名稱	DYNAMIC INTERNATIONAL (HONG KONG) LIMITED
Client's address 客戶地址	RM 10,10/F., BLOCK A, WAH HING INDUSTRIAL MANSION, 36 TAI YAU STREET, SAM PO KONG, KOWLOON, HONG KONG
Job No. 工作編號:	HKIEQ14-00158
Product Name 產品名稱:	DYNAMIC SEAL (LIGHT GREY)
Job Receiving Date 收到日期:	6 OCTOBER 2014
Preparation Period 準備時期:	5 Working Days



MSDS

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Client's address 客戶地址	RM 10,10/F., BLOCK A, WAH HING INDUSTRIAL MANSION, 36 TAI YAU STREET, SAM PO KONG, KOWLOON, HONG KONG
Job No. 工作編號:	HKIEQ14-00159
Product Name 產品名稱:	DYNAMIC SEAL (WHITE)
Job Receiving Date 收到日期:	6 OCTOBER 2014
Preparation Period 準備時期:	5 Working Days

Safety Data Sheet

29 CFR 1910.1200


Printing date 10/13/2014

Reviewed on 10/13/2014

1 Identification

- **Product identifier**
- **Trade name:** *Dynamic Seal*
- **Recommended use of the chemical and restrictions on use**
- **Application of the substance / the preparation:** *Dynamic Seal*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Dynamic International (Hong Kong) Limited
Rm 10, 10/F, Block A, Wah Hing Industrial Mansion, 36 Tai Yau Street, Sam Po Kong, Kowloon, Hong Kong
Tel: 3188 3662
Email: gallus.int@gmail.com
- **Further information obtainable from:** *Dynamic International (Hong Kong) Limited*
- **Emergency telephone number:**
Poison Center
Tel: +1 800 222 1222
- **Reference Number:** *HKIEQ14-00159, HKHC140900003314-102*

2 Hazard(s) identification

- **Classification of the substance or mixture**
Classification according to OSHA Hazard Communication Standard (29 CFR 1910.1200)
-  **GHS07**
Acute Tox. 4 H302 Harmful if swallowed.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
- **Information concerning particular hazards for human and environment:**
The product has to be labeled due to the calculation procedure of OSHA Hazard Communication Standard (29 CFR 1910.1200).
- **Classification system:**
The classification is according to the latest edition of OSHA Hazard Communication Standard (29 CFR 1910.1200), and extended by company and literature data.
- **Label elements**
- **Labelling according to OSHA Hazard Communication Standard (29 CFR 1910.1200)**
- **Hazard pictograms**



GHS07

- **Signal word** *Warning*
- **Hazard-determining components of labeling:**
Silicone Rubber, Methyl RTV 107
butan-2-one O,O',O''-(vinylsilyldiyl)trioxime
- **Hazard statements**
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
- **Precautionary statements**

<i>P101</i>	<i>If medical advice is needed, have product container or label at hand.</i>
<i>P102</i>	<i>Keep out of reach of children.</i>
<i>P103</i>	<i>Read label before use.</i>

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- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P305+P351+P338 **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321 Specific treatment (see on this label).
- P362 Take off contaminated clothing.
- P301+P312 **IF SWALLOWED:** Call a POISON CENTER/doctor if you feel unwell.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P330 Rinse mouth.
- P302+P352 **IF ON SKIN:** Wash with plenty of water.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Hazards not otherwise classified (HNOC)** No further relevant information available.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:**

Mixture of the substances listed below with nonhazardous additions.
For the wording of the listed risk phrases refer to section 16.

· **Hazardous components:**

63148-60-7	Silicone Rubber, Methyl RTV 107 ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2B, H320	45.36%
471-34-1	calcium carbonate	30.0%
70131-67-8	Poly(dimethylsiloxane), hydroxy terminated ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	15.2%
22984-54-9	butan-2-one O,O',O''-(methylsilyldiyl)trioxime ⚠ Acute Tox. 3, H311	6.0%
2224-33-1	butan-2-one O,O',O''-(vinylsilyldiyl)trioxime ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2B, H320	3.0%
7758-97-6	lead chromate ☠ Carc. 1B, H350; Repr. 1A, H360; STOT RE 2, H373	0.04%

· **Non-Hazardous components:**

1317-80-2	Rutile (TiO ₂)	0.4%
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· **Remark:**

Classification information of butan-2-one O,O',O''-(vinylsilyldiyl)trioxime (CAS no. 2224-33-1) and Silicone Rubber, Methyl RTV 107 (CAS no. 63148-60-7) are provided by the formulation owner and/or the chemical supplier(s).

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:** Immediately call a doctor.

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

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- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** No further relevant information available.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Special protective equipment and precautions for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Use Personal Protective equipment recommended in section 8.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

7 Handling and storage

- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Components with limit values that require monitoring at the workplace:**

471-34-1 calcium carbonate (30%)

PEL (USA) Long-term value: 15* 5** mg/m³
*total dust **respirable fraction

REL (USA) Long-term value: 10* 5** mg/m³
*total dust **respirable fraction

TLV (USA) TLV withdrawn

7758-97-6 lead chromate (0.04%)

PEL (USA) Long-term value: 0.005* mg/m³
Ceiling limit value: 0.1** mg/m³
*as Cr(VI) **as CrO₃; see 29 CFR 1910.1026

REL (USA) Long-term value: 0.0002 mg/m³
as Cr; See Pocket Guide Apps. A and C

TLV (USA) Long-term value: 0.05* 0.012** mg/m³
*as Pb; BEI ; **as Cr

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· **Ingredients with biological limit values:**

7758-97-6 lead chromate

BEI (USA)	30 µg/100 ml Medium: blood Time: not critical Parameter: Lead
	10 µg/100 ml Medium: blood Time: not critical Parameter: Lead (women of child bearing potential)

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Based on the composition shown in section 3, the following measures are suggested for occupational safety measure**
- **Appropriate engineering controls** Keep away from foodstuffs, beverages and feed.
- **Personal protective equipment:**
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **General Information**

· **Appearance:**

Form:	Liquid
Color:	White
Odor:	Odourless
Odor threshold:	Not available

· **pH-value:** Not available

· **Change in condition**

Melting point/Melting range:	Not available
Freezing point:	Not available

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Boiling point/Boiling range:	Not available
· Flash point:	9 °C
· Flammability (solid, gaseous):	Not available
· Auto-Ignition temperature:	>200 °C
· Decomposition temperature:	Not available
· Explosion limits:	
Lower:	1.3 Vol %
Upper:	35.6 Vol %
· Vapor pressure:	Not applicable.
· Density:	Not available
· Relative density	Not available
· Vapour density	Not available
· Evaporation rate	Not available
· Solubility in / Miscibility with Water:	Not available
· Partition coefficient (n-octanol/water):	Not available
· Viscosity:	
Dynamic:	Not available
Kinematic:	Not available
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No decomposition if used according to specifications.
- **Chemical stability** Stable under recommended storage conditions.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

471-34-1 calcium carbonate

Oral	LD50	6450 mg/kg (rat)
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70131-67-8 Poly(dimethylsiloxane), hydroxy terminated

Oral	LD50	>62080 mg/kg (rat)
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Dermal	LD50	>15520 mg/kg (rabbit)
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7758-97-6 lead chromate

Oral	LD50	12000 mg/kg (mouse)
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· **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect possible
- **Sensitization:** Sensitization possible through skin contact in some sensitive individuals

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· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

7758-97-6	lead chromate	I
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· **NTP (National Toxicology Program)**

7758-97-6	lead chromate	K
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· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Other adverse effects:** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**

· **DOT, IMDG, IATA** Not applicable

· **UN proper shipping name**

· **DOT, IMDG, IATA** Not applicable

· **Transport hazard class(es)**

· **DOT, IMDG, IATA**
· **Class** Not applicable

· **Packing group**

· **DOT, IMDG, IATA** Not applicable

· **Environmental hazards:**

· **Marine pollutant:** No

· **Special precautions for user** Not applicable.

· **EMS Number:** Not applicable

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

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· **Transport/Additional information:** Not available

· **UN "Model Regulation":** -

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**
· *Sara*

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

7758-97-6 lead chromate

· **TSCA (Toxic Substances Control Act):**

471-34-1 calcium carbonate

70131-67-8 Poly(dimethylsiloxane), hydroxy terminated

22984-54-9 butan-2-one O,O',O''-(methylsilyldiylne)trioxime

2224-33-1 butan-2-one O,O',O''-(vinylsilyldiylne)trioxime

1317-80-2 Rutile (TiO₂)

7758-97-6 lead chromate

· **Proposition 65**

· **Chemicals known to cause cancer:**

7758-97-6 lead chromate

· **Chemicals known to cause reproductive toxicity for females:**

7758-97-6 lead chromate

· **Chemicals known to cause reproductive toxicity for males:**

7758-97-6 lead chromate

· **Chemicals known to cause developmental toxicity:**

7758-97-6 lead chromate

· **Carcinogeny categories**

· **EPA (Environmental Protection Agency)**

7758-97-6 lead chromate

K

· **TLV (Threshold Limit Value established by ACGIH)**

7758-97-6 lead chromate

A2

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

7758-97-6 lead chromate

· **National regulations:** Not available

· **Other regulations, limitations and prohibitive regulations** Not available

16 Other information

· **NFPA ratings (scale 0 - 4)**



Health = 2
Fire = 1
Reactivity = 0

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HMIS ratings (scale 0 - 4)

Table with 3 rows: HEALTH 2, FIRE 1, REACTIVITY 0. Includes text: Health = 2, Fire = 1, Reactivity = 0

Relevant phrases

- H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H320 Causes eye irritation.
H350 May cause cancer.
H360 May damage fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

The contents and format of this SDS are in accordance with 29 CFR 1910.1200.

DISCLAIMER OF LIABILITY

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness.

Date of preparation / last revision 10/13/2014 / -

Abbreviations and acronyms:

- IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 3: Acute toxicity, Hazard Category 3
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B
Carc. 1B: Carcinogenicity, Hazard Category 1B
Repr. 1A: Reproductive toxicity, Hazard Category 1A
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

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Safety Data Sheet

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Printing date 10/13/2014

Reviewed on 10/10/2014

1 Identification

- **Product identifier**
- **Trade name:** *Dynamic Seal*
- **Recommended use of the chemical and restrictions on use**
- **Application of the substance / the preparation:** *Dynamic Seal*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Dynamic International (Hong Kong) Limited
Rm 10, 10/F, Block A, Wah Hing Industrial Mansion, 36 Tai Yau Street, Sam Po Kong, Kowloon, Hong Kong
Tel: 3188 3662
Email: gallus.int@gmail.com
- **Further information obtainable from:** *Dynamic International (Hong Kong) Limited*
- **Emergency telephone number:**
Poison Center
Tel: +1 800 222 1222
- **Reference Number:** *HKIEQ14-00158, HKHC140900003314-101*

2 Hazard(s) identification

- **Classification of the substance or mixture**
Classification according to OSHA Hazard Communication Standard (29 CFR 1910.1200)



GHS08 Health hazard

- Carc. 1B H350 May cause cancer.*
- Repr. 1A H360 May damage fertility or the unborn child.*



GHS07

- Acute Tox. 4 H302 Harmful if swallowed.*
- Skin Irrit. 2 H315 Causes skin irritation.*
- Eye Irrit. 2A H319 Causes serious eye irritation.*

- **Information concerning particular hazards for human and environment:**
The product has to be labeled due to the calculation procedure of OSHA Hazard Communication Standard (29 CFR 1910.1200).
- **Classification system:**
The classification is according to the latest edition of OSHA Hazard Communication Standard (29 CFR 1910.1200), and extended by company and literature data.

- **Label elements**
- **Labelling according to OSHA Hazard Communication Standard (29 CFR 1910.1200)**
- **Hazard pictograms**



GHS07



GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labeling:**
Silicone Rubber, Methyl RTV 107
lead chromate
butan-2-one O,O',O''-(vinylsilyldiyl)trioxime

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Trade name: Dynamic Seal

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Hazard statements

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H350 May cause cancer.
- H360 May damage fertility or the unborn child.

Precautionary statements

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read label before use.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P281 Use personal protective equipment as required.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321 Specific treatment (see on this label).
- P362 Take off contaminated clothing.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P330 Rinse mouth.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Hazards not otherwise classified (HNOC)** Not further relevant information available.

3 Composition/information on ingredients

Chemical characterization: Mixtures**Description:**

Mixture of the substances listed below with nonhazardous additions.
For the wording of the listed risk phrases refer to section 16.

Hazardous components:

471-34-1	calcium carbonate	30.0%
70131-67-8	Poly(dimethylsiloxane), hydroxy terminated ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	15.2%
22984-54-9	butan-2-one O,O',O''-(methylsilyldiyl)trioxime ⚠ Acute Tox. 3, H311	6.0%
2224-33-1	butan-2-one O,O',O''-(vinylsilyldiyl)trioxime ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2B, H320	3.0%
1333-86-4	Carbon black	0.22%
7758-97-6	lead chromate ⚠ Carc. 1B, H350; Repr. 1A, H360; STOT RE 2, H373	0.22%
63148-60-7	Silicone Rubber, Methyl RTV 107 ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2B, H320	45.36%

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· Remark:

Classification information of butan-2-one O,O',O''-(vinylsilyldyne)trioxime (CAS no. 2224-33-1) and Silicone Rubber, Methyl RTV 107 (CAS no. 63148-60-7) are provided by the formulation owner and/or the chemical supplier(s).

4 First-aid measures

· Description of first aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** No further relevant information available.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Special protective equipment and precautions for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Use Personal Protective equipment recommended in section 8.

· Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

7 Handling and storage

· Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

· Information about protection against explosions and fires: Keep respiratory protective device available.**· Conditions for safe storage, including any incompatibilities****· Requirements to be met by storerooms and receptacles:** No special requirements.**· Information about storage in one common storage facility:** Not required.**· Further information about storage conditions:** Keep receptacle tightly sealed.**· Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

· Components with limit values that require monitoring at the workplace:

471-34-1 calcium carbonate (30%)

PEL (USA)	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV (USA)	TLV withdrawn

1333-86-4 Carbon black (0.22%)

PEL (USA)	Long-term value: 3.5 mg/m ³
REL (USA)	Long-term value: 3.5* mg/m ³ *0.1 in presence of PAHs; See Pocket Guide Apps.A+C
TLV (USA)	Long-term value: 3* mg/m ³ *inhalable fraction

7758-97-6 lead chromate (0.22%)

PEL (USA)	Long-term value: 0.005* mg/m ³ Ceiling limit value: 0.1** mg/m ³ *as Cr(VI) **as CrO ₃ ; see 29 CFR 1910.1026
REL (USA)	Long-term value: 0.0002 mg/m ³ as Cr; See Pocket Guide Apps. A and C
TLV (USA)	Long-term value: 0.05* 0.012** mg/m ³ *as Pb; BEI ; **as Cr

· Ingredients with biological limit values:

7758-97-6 lead chromate (0.22%)

BEI (USA)	30 µg/100 ml Medium: blood Time: not critical Parameter: Lead
	10 µg/100 ml Medium: blood Time: not critical Parameter: Lead (women of child bearing potential)

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Based on the composition shown in section 3, the following measures are suggested for occupational safety measure**
- **Appropriate engineering controls** Keep away from foodstuffs, beverages and feed.
- **Personal protective equipment:**
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **General Information**

- **Appearance:**

Form:	Liquid
Color:	Light Grey
· Odor:	Odourless
· Odor threshold:	Not available

- pH-value: Not available

- **Change in condition**

Melting point/Melting range:	Not available
Freezing point:	Not available
Boiling point/Boiling range:	Not available

- Flash point: 9 °C

- Flammability (solid, gaseous): Not available

- Auto-Ignition temperature: >200 °C

- Decomposition temperature: Not available

- **Explosion limits:**

Lower:	1.3 Vol %
Upper:	35.6 Vol %

- Vapor pressure: Not available

- Density: Not available

- Relative density: Not available

- Vapour density: Not available

- Evaporation rate: Not available

- **Solubility in / Miscibility with**

Water: Not available

- Partition coefficient (n-octanol/water): Not available

- **Viscosity:**

Dynamic: Not available

Kinematic: Not available

- Other information: No further relevant information available.

10 Stability and reactivity

- **Reactivity** No decomposition if used according to specifications.
- **Chemical stability** Stable under recommended storage conditions.

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- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

471-34-1 calcium carbonate

Oral	LD50	6450 mg/kg (rat)
------	------	------------------

70131-67-8 Poly(dimethylsiloxane), hydroxy terminated

Oral	LD50	>62080 mg/kg (rat)
------	------	--------------------

Dermal	LD50	>15520 mg/kg (rabbit)
--------	------	-----------------------

1333-86-4 Carbon black

Oral	LD50	>8000 mg/kg (rat)
------	------	-------------------

Dermal	LD50	>3000 mg/kg (rabbit)
--------	------	----------------------

7758-97-6 lead chromate

Oral	LD50	12000 mg/kg (mouse)
------	------	---------------------

- **Primary irritant effect:**

- **on the skin:** Irritating effect possible

- **on the eye:** Irritating effect possible

- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Carcinogenic.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

1333-86-4	Carbon black	2B
-----------	--------------	----

7758-97-6	lead chromate	I
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- **NTP (National Toxicology Program)**

7758-97-6	lead chromate	K
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- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability** No further relevant information available.

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Other adverse effects** No further relevant information available.

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13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|-----------------|
| · UN-Number | |
| · DOT, IMDG, IATA | Not applicable |
| · UN proper shipping name | |
| · DOT, IMDG, IATA | Not applicable |
| · Transport hazard class(es) | |
| · DOT, IMDG, IATA | |
| · Class | Not applicable |
| · Packing group | |
| · DOT, IMDG, IATA | Not applicable |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · EMS Number: | Not applicable |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not available |
| · UN "Model Regulation": | - |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

7758-97-6 | lead chromate

· **TSCA (Toxic Substances Control Act):**

471-34-1	calcium carbonate
70131-67-8	Poly(dimethylsiloxane), hydroxy terminated
22984-54-9	butan-2-one O,O',O''-(methylsilylidyne)trioxime
2224-33-1	butan-2-one O,O',O''-(vinylsilylidyne)trioxime
1333-86-4	Carbon black
7758-97-6	lead chromate

· **Proposition 65**

· **Chemicals known to cause cancer:**

1333-86-4 | Carbon black

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7758-97-6	lead chromate	
· Chemicals known to cause reproductive toxicity for females:		
7758-97-6	lead chromate	
· Chemicals known to cause reproductive toxicity for males:		
7758-97-6	lead chromate	
· Chemicals known to cause developmental toxicity:		
7758-97-6	lead chromate	
· Cancerogenity categories		
· EPA (Environmental Protection Agency)		
7758-97-6	lead chromate	K
· TLV (Threshold Limit Value established by ACGIH)		
1333-86-4	Carbon black	A4
7758-97-6	lead chromate	A2
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
1333-86-4	Carbon black	
7758-97-6	lead chromate	

· National regulations:

· Information about limitation of use:

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

· Other regulations, limitations and prohibitive regulations Not available

16 Other information

· NFPA ratings (scale 0 - 4)



Health = 2
Fire = 1
Reactivity = 0

· HMIS ratings (scale 0 - 4)



Health = *2
Fire = 1
Reactivity = 0

· Relevant phrases

- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H320 Causes eye irritation.
- H350 May cause cancer.
- H360 May damage fertility or the unborn child.
- H373 May cause damage to organs through prolonged or repeated exposure.

The contents and format of this SDS are in accordance with 29 CFR 1910.1200.

DISCLAIMER OF LIABILITY

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability

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for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

· **Date of preparation / last revision** 10/13/2014 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Acute Tox. 4: Acute toxicity, Hazard Category 4

Acute Tox. 3: Acute toxicity, Hazard Category 3

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B

Carc. 1B: Carcinogenicity, Hazard Category 1B

Repr. 1A: Reproductive toxicity, Hazard Category 1A

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

· **Remarks:**

This sample is likely to be classified as article and is out of scope of a SDS as set out in 29 CFR Part 1910.1200. This SDS is generated for client's reference only.

End of document

USA

