

Safety Data Sheet
acc. to OSHA HCS

Printing Date 07/30/2018

Revision Number 4

Revision Date 09/06/2017

1 Identification

- **Product identifier**
- **Trade name:** *WS-8070 B-1/2, B-2 Part A*
- **Relevant identified uses of the substance or mixture.** *Corrosion Inhibitor*
- **Application of the substance / the mixture** *Corrosion Inhibitor*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*Royal Adhesives & Sealants
800 E. Anaheim Street
Wilmington. CA 90744
(310) 830-9904*
- **Information department:** *Environment protection department.*
- **Emergency telephone number:**
*ChemTrec: Day or Night within USA and Canada: 1-800-424-9300.
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)*

2 Hazard(s) identification

- **Classification of the substance or mixture**



- Acute Tox. 4 H302 Harmful if swallowed.*
- Skin Irrit. 2 H315 Causes skin irritation.*
- Eye Irrit. 2A H319 Causes serious eye irritation.*
- STOT SE 3 H335 May cause respiratory irritation.*
- Aquatic Acute 3 H402 Harmful to aquatic life.*
- Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.*

- **Label elements**
- **GHS label elements** *The product is classified and labeled according to the Globally Harmonized System (GHS).*
- **Hazard pictograms**



GHS07

- **Signal word** *Warning*
- **Hazard statements**
*Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.
Harmful to aquatic life.
Harmful to aquatic life with long lasting effects.*

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- **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

Wear protective gloves / eye protection / face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

If on skin: Wash with plenty of water.

Specific treatment (see on this label).

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

If eye irritation persists: Get medical advice/attention.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

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

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 1

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**

HEALTH	2
FIRE	1
PHYSICAL HAZARD	0

Health = 2

Fire = 1

Physical Hazard = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

* 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Mixture

- **Hazardous components:**

1313-13-9	manganese dioxide	25-50%
61788-32-7	Hydrogenated Terphenyl	25-50%
1318-02-1	zeolite [impurity]	2.5-10%
971-15-3	Dipentamethylene Thiuram Hexasulphide	≤2.5%
26140-60-3	Terphenyl	≤2.5%
1310-73-2	sodium hydroxide [impurity]	≤2.5%

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4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
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. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for 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

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray.
Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Protective clothing and respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste in accordance with federal state and local regulations.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

26140-60-3	Terphenyl	0.45 mg/m ³
67762-90-7	Synthetic Amorphous Silica	120 mg/m ³

- **PAC-2:**

26140-60-3	Terphenyl	5 mg/m ³
67762-90-7	Synthetic Amorphous Silica	1,300 mg/m ³

- **PAC-3:**

26140-60-3	Terphenyl	1,400 mg/m ³
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Trade name: WS-8070 B-1/2, B-2 Part A

67762-90-7 Synthetic Amorphous Silica

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7,900 mg/m³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Open and handle receptacle with care.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location away from direct heat.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

61788-32-7 Hydrogenated Terphenyl

REL	Long-term value: 5 mg/m ³ , 0.5 ppm
TLV	Long-term value: 4.9 mg/m ³ , 0.5 ppm nonirradiated

26140-60-3 Terphenyl

STEL	Short-term value: C 5 mg/m ³
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- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment (see listings below)**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
- **Breathing equipment:**
Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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· **Material of gloves**

Nitrile rubber, NBR

Chloroprene rubber, CR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **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

Safety glasses with side shields.

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Paste

Color: Black

· **Odor:** Characteristic

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point: Undetermined.

Boiling point: Undetermined

· **Flash point:** > 150 °C (>302 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 373 °C (703.4 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Flammable limits:**

Lower: Not determined

Upper: Not determined

· **Vapor pressure:** Not determined.

· **Specific gravity at 20 °C (68 °F):** 1.76 g/cm³ (14.6872 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

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- | | |
|--|-----------------|
| · Partition coefficient (n-octanol/water): Not determined. | |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Solvent content: | |
| Organic solvents: | 0.0 % |
| · Solids content: Not available. | |
| · Other information VOC material 2.4 g/l; VOC less water/less exempt 2.4 g/l. | |

* 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Reacts with oxidizing agents.
- **Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Hydrogen chloride (HCl)
Hydrocarbons

* 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

1313-13-9 manganese dioxide

Oral	LD50	40 mg/kg (mouse)
		≥1,490 mg/kg (rat)

61788-32-7 Hydrogenated Terphenyl

Oral	LD50	>12,500 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4 h	>4.7 mg/l (rat)

1310-73-2 sodium hydroxide [impurity]

Oral	LD50	2,000 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Irritant

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- **Carcinogenic categories**

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

1318-02-1 | zeolite [impurity]

3

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **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.

- **Behavior in environmental systems:**

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

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

- **Ecotoxicological effects:**

- **Remark:** Harmful to fish

- **Additional ecological information:**

- **General notes:** At present there are no ecotoxicological assessments.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

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

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:** Must be specially treated adhering to official regulations.

- **Uncleaned packagings:**

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

14 Transport information

- **UN-Number**

- **DOT, ADN, IMDG, IATA** not regulated

- **UN proper shipping name**

- **DOT, ADN, IMDG, IATA** not regulated

- **Transport hazard class(es)**

- **DOT, ADN, IMDG, IATA**

- **Class** not regulated

- **Packing group**

- **DOT, IMDG, IATA** not regulated

- **Environmental hazards:**

- **Not applicable.**

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· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **National regulations:**

· **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

* 16 Other information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Royal Adhesives & Sealants makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Royal Adhesives & Sealants or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

· **Department issuing SDS:** Environment protection department.

· **Creation Date:** 09/04/2017

· **Date of preparation / last revision** 07/30/2018 / 3

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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1 Identification

- **Product identifier**
- **Trade name:** *WS-8070 B-1/2, B-2 Part B*
- **Relevant identified uses of the substance or mixture.** *Sealant*
- **Application of the substance / the mixture** *Sealant*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*Royal Adhesives & Sealants
 800 E. Anaheim Street
 Wilmington. CA 90744
 (310) 830-9904*
- **Information department:** *Environment protection department.*
- **Emergency telephone number:**
*ChemTrec: Day or Night within USA and Canada: 1-800-424-9300.
 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)*

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

*Carc. 1A H350 May cause cancer.
 Repr. 2 H361 Suspected of damaging fertility or the unborn child.
 STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.*



GHS07

*Skin Irrit. 2 H315 Causes skin irritation.
 Eye Irrit. 2A H319 Causes serious eye irritation.
 Aquatic Acute 3 H402 Harmful to aquatic life.
 Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.*

- **Label elements**
- **GHS label elements** *The product is classified and labeled according to the Globally Harmonized System (GHS).*

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· **Hazard pictograms**

GHS02 GHS07 GHS08

· **Signal word** *Danger*· **Hazard statements***Highly flammable liquid and vapor.**Causes skin irritation.**Causes serious eye irritation.**May cause cancer.**Suspected of damaging fertility or the unborn child.**May cause damage to organs through prolonged or repeated exposure.**Harmful to aquatic life.**Harmful to aquatic life with long lasting effects.*· **Precautionary statements***Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**Keep away from heat/sparks/open flames/hot surfaces. - No smoking.**Keep container tightly closed.**Ground/bond container and receiving equipment.**Use explosion-proof electrical/ventilating/lighting/equipment.**Use only non-sparking tools.**Take precautionary measures against static discharge.**Do not breathe dust/fume/gas/mist/vapors/spray.**Wash thoroughly after handling.**Avoid release to the environment.**Wear protective gloves/protective clothing/eye protection/face protection.**If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.**If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**IF exposed or concerned: Get medical advice/attention.**Specific treatment (see on this label).**Get medical advice/attention if you feel unwell.**Take off contaminated clothing and wash it before reuse.**If skin irritation occurs: Get medical advice/attention.**If eye irritation persists: Get medical advice/attention.**In case of fire: Use for extinction: CO2, powder or water spray.**Store in a well-ventilated place. Keep cool.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Classification system:**· **NFPA ratings (scale 0 - 4)**

Health = 2

Fire = 3

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = 2

Fire = 3

Physical Hazard = 0

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- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT: Not applicable.**
- **vPvB: Not applicable.**

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description: Mixture**

· **Hazardous components:**

68611-50-7	Polysulphide Polymer	25-50%
471-34-1	calcium carbonate	5-20%
13463-67-7	titanium dioxide	2.5-10%
13423-61-5	Magnesium Chromate	2.5-10%
108-88-3	toluene	2.5-10%
108-95-2	phenol	≤1.0%
50-00-0	formaldehyde	≤0.09%
95-48-7	o-cresol	≤0.09%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**
Supply fresh air or oxygen; call for doctor.
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. If symptoms persist, consult a doctor.
- **After swallowing:** Seek medical treatment.
- **Information for 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

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray.
Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Protective clothing and respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.

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Ensure adequate ventilation

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste in accordance with federal state and local regulations.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

13463-67-7	titanium dioxide	30 mg/m ³
108-88-3	toluene	67 ppm
108-95-2	phenol	15 ppm
50-00-0	formaldehyde	0.90 ppm

· **PAC-2:**

13463-67-7	titanium dioxide	330 mg/m ³
108-88-3	toluene	560 ppm
108-95-2	phenol	23 ppm
50-00-0	formaldehyde	14 ppm

· **PAC-3:**

13463-67-7	titanium dioxide	2,000 mg/m ³
108-88-3	toluene	3700* ppm
108-95-2	phenol	200 ppm
50-00-0	formaldehyde	56 ppm

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location away from direct heat.
- **Information about storage in one common storage facility:** Keep away from open flames and high temperatures.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data.

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· **Control parameters**

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

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

471-34-1 calcium carbonate

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

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

TLV TLV withdrawn

13463-67-7 titanium dioxide

PEL Long-term value: 15* mg/m³
*total dust

REL See Pocket Guide App. A

TLV Long-term value: 10 mg/m³

108-88-3 toluene

PEL Long-term value: 200 ppm
Ceiling limit value: 300; 500* ppm
*10-min peak per 8-hr shift

REL Short-term value: 560 mg/m³, 150 ppm
Long-term value: 375 mg/m³, 100 ppm

TLV Long-term value: 75 mg/m³, 20 ppm
BEI

108-95-2 phenol

PEL Long-term value: 19 mg/m³, 5 ppm
Skin

REL Long-term value: 19 mg/m³, 5 ppm
Ceiling limit value: 60* mg/m³, 15.6* ppm
*15-min; Skin

TLV Long-term value: 19 mg/m³, 5 ppm
Skin; BEI

50-00-0 formaldehyde

PEL Short-term value: 2 ppm
Long-term value: 0.75 ppm
see 29 CFR 1910.1048(c)

REL Long-term value: 0.016 ppm
Ceiling limit value: 0.1* ppm
*15-min; See Pocket Guide App. A

TLV Short-term value: 0.37 mg/m³, 0.3 ppm
Long-term value: 0.12 mg/m³, 0.1 ppm
DSEN; RSEN

95-48-7 o-cresol

PEL Long-term value: 22 mg/m³, 5 ppm
Skin

REL Long-term value: 10 mg/m³, 2.3 ppm

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TLV	Long-term value: 20* mg/m ³ Skin; *as inhalable fraction and vapor
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· Ingredients with biological limit values:

108-88-3 toluene

BEI	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene
	0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene
	0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)

108-95-2 phenol

BEI	250 mg/g creatinine Medium: urine Time: end of shift Parameter: Phenol with hydrolysis (background, nonspecific)
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· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment (see listings below)**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.

· **Breathing equipment:**

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

Nitrile rubber, NBR

Chloroprene rubber, CR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **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.

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- **Eye protection:**
Safety glasses with side shields.



Tightly sealed goggles

- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Paste

Color: Whitish

- **Odor:** Characteristic

- **Odor threshold:** Not determined.

- **pH-value:** Not applicable.

- **Change in condition**

Melting point: Undetermined.

Boiling point: Undetermined

- **Flash point:** 4 °C (39.2 °F)

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- **Flammable limits:**

Lower: Not determined

Upper: Not determined

- **Specific gravity at 20 °C (68 °F):** 1.46 g/cm³ (12.1837 lbs/gal)

- **Relative density** Not determined.

- **Vapor density** Not determined.

- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

- **Viscosity:**

Dynamic: Not determined.

Kinematic: Not determined.

- **Solvent content:**

Organic solvents: Not available

Solids content: Not available.

- **Other information** VOC's grams/liter [less water. less exempts] 77.5

10 Stability and reactivity

- **Reactivity** No further relevant information available.

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- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No further information is available.
- **Conditions to avoid** Heat, flames, sparks, hot surfaces, ignition sources.
- **Incompatible materials:** Reacts with oxidizing agents.
- **Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Sulfur oxides (SO_x)
Trace amounts of the following may be formed:
Hydrogen sulfide
Phenol
Formaldehyde
- **Additional information:**
Trace amounts of Formaldehyde are contained in this product. However, it is unlikely that this chemical will be released as the curing process is at ambient temperature.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

108-88-3 toluene		
Oral	LD50	5,000 mg/kg (rat)
Dermal	LD50	12,124 mg/kg (rabbit)
Inhalative	LC50/4 h	5,320 mg/l (mouse)
108-95-2 phenol		
Oral	LD50	317 mg/kg (rat)
Dermal	LD50	850 mg/kg (rabbit)
50-00-0 formaldehyde		
Oral	LD50	>200 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Skin irritant.
- **on the eye:**
Irritating effect.
Vapors may be irritating to the eyes.
- **Sensitization:** Skin Contact - Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
- **Carcinogenic categories**

IARC (International Agency for Research on Cancer)		
13463-67-7	titanium dioxide	2B
13423-61-5	Magnesium Chromate	1
108-88-3	toluene	3
108-95-2	phenol	3
50-00-0	formaldehyde	1

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· NTP (National Toxicology Program)		
13423-61-5	Magnesium Chromate	K
50-00-0	formaldehyde	K
· OSHA-Ca (Occupational Safety & Health Administration)		
50-00-0	formaldehyde	


12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:** At present there are no ecotoxicological assessments.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Must be specially treated adhering to official regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|---|---------------------|
| · UN-Number | |
| · DOT, IMDG, IATA | UN1133 |
| · UN proper shipping name | |
| · DOT | Adhesives |
| · IMDG, IATA | ADHESIVES |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 3 Flammable liquids |

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· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids
· Label	3
· Packing group	III
· DOT, IMDG, IATA	III
· Environmental hazards:	Not applicable.
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	33
· EMS Number:	F-E,S-D
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	UN1133, Adhesives, 3, III

15 Regulatory information

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

· Section 355 (extremely hazardous substances):

108-95-2	phenol
50-00-0	formaldehyde
95-48-7	o-cresol

· Section 313 (Specific toxic chemical listings):

13423-61-5	Magnesium Chromate
108-88-3	toluene
108-95-2	phenol
50-00-0	formaldehyde
95-48-7	o-cresol

· TSCA (Toxic Substances Control Act):

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

· Proposition 65

· Chemicals known to cause cancer:

13463-67-7	titanium dioxide
13423-61-5	Magnesium Chromate
50-00-0	formaldehyde

· Chemicals known to cause reproductive toxicity for females:

13423-61-5	Magnesium Chromate
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· Chemicals known to cause reproductive toxicity for males:

13423-61-5	Magnesium Chromate
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· **Chemicals known to cause developmental toxicity:**

13423-61-5	Magnesium Chromate
108-88-3	toluene

· **(DSL) Canada Domestic Substance List**

All components of this product are on the DSL(Canada Domestic Substance list) or are exempt from DSL requirements.

· **New Jersey Right-to-Know List:**

68611-50-7	Polysulphide Polymer
13463-67-7	titanium dioxide
108-88-3	toluene
108-95-2	phenol
50-00-0	formaldehyde
95-48-7	o-cresol

· **New Jersey Special Hazardous Substance List:**

108-88-3	toluene	TE, F3
108-95-2	phenol	MU, F2
50-00-0	formaldehyde	CA, CO, MU, F4
95-48-7	o-cresol	CA, F2

· **Pennsylvania Right-to-Know List:**

68611-50-7	Polysulphide Polymer
13463-67-7	titanium dioxide
13423-61-5	Magnesium Chromate
108-88-3	toluene
108-95-2	phenol
50-00-0	formaldehyde
95-48-7	o-cresol

· **Pennsylvania Special Hazardous Substance List:**

108-88-3	toluene	E
108-95-2	phenol	E
50-00-0	formaldehyde	ES
95-48-7	o-cresol	E

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

108-88-3	toluene	II
108-95-2	phenol	D, I
50-00-0	formaldehyde	B1
95-48-7	o-cresol	C

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

13463-67-7	titanium dioxide	A4
108-88-3	toluene	A4
108-95-2	phenol	A4
50-00-0	formaldehyde	A2

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· MAK (German Maximum Workplace Concentration)		
13463-67-7	titanium dioxide	3A
108-95-2	phenol	3B
50-00-0	formaldehyde	4
95-48-7	o-cresol	3A
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
13463-67-7	titanium dioxide	
50-00-0	formaldehyde	

· **National regulations:**

- **Water hazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Royal Adhesives & Sealants makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Royal Adhesives & Sealants or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- **Department issuing SDS:** Environment protection department.
- **Creation Date:** 09/13/2017
- **Date of preparation / last revision** 07/30/2018 / 1
- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 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)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety
 OSHA: Occupational Safety & Health
 TLV: Threshold Limit Value
 PEL: Permissible Exposure Limit
 REL: Recommended Exposure Limit
 BEI: Biological Exposure Limit
 Flam. Liq. 2: Flammable liquids – Category 2
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
 Carc. 1A: Carcinogenicity – Category 1A
 Repr. 2: Reproductive toxicity – Category 2
 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
 Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3
 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3