

Safety Data Sheet
acc. to OSHA HCS

Printing Date 08/19/2018

Revision Number 4

Revision Date 08/19/2018

1 Identification

- **Product identifier**
- **Trade name:** WS-8020 RC A-1/2, A-2 Part A
- **Relevant identified uses of the substance or mixture.** Activator
- **Application of the substance / the mixture** Activator
- **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.
- Acute Tox. 4 H332 Harmful if inhaled.
- 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**



- **Signal word** Warning
- **Hazard statements**
Harmful if swallowed or if inhaled.
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

- **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%
26140-60-3	Terphenyl	≤2.5%
971-15-3	Dipentamethylene Thiuram Hexasulphide	≤2.5%
1310-73-2	sodium hydroxide [impurity]	≤2.5%
557-05-1	zinc distearate, pure	≤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
557-05-1	zinc distearate, pure	30 mg/m ³
67762-90-7	Synthetic Amorphous Silica	120 mg/m ³
7664-38-2	phosphoric acid	3 mg/m ³

- **PAC-2:**

26140-60-3	Terphenyl	5 mg/m ³
557-05-1	zinc distearate, pure	330 mg/m ³
67762-90-7	Synthetic Amorphous Silica	1,300 mg/m ³

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7664-38-2	phosphoric acid	30 mg/m ³
· PAC-3:		
26140-60-3	Terphenyl	1,400 mg/m ³
557-05-1	zinc distearate, pure	2,000 mg/m ³
67762-90-7	Synthetic Amorphous Silica	7,900 mg/m ³
7664-38-2	phosphoric acid	150 mg/m ³

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.
- **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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557-05-1 zinc distearate, pure

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

- **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.

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- **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.

- **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:** > 99 °C (>210.2 °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

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Upper:	Not determined
· Vapor pressure:	Not determined.
· Specific gravity at 20 °C (68 °F):	1.76 g/cm ³ (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.
· 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	Grams VOC/Liter [less water, less exempts] 2.4

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
- **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 |

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· Transport hazard class(es)	
· DOT, ADN, IMDG, IATA	
· Class	not regulated
· Packing group	
· DOT, IMDG, IATA	not regulated
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	not regulated

15 Regulatory information

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

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

1313-13-9	manganese dioxide
557-05-1	zinc distearate, pure
7664-38-2	phosphoric acid

· 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:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· (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:

26140-60-3	Terphenyl
1310-73-2	sodium hydroxide [impurity]
557-05-1	zinc distearate, pure
7664-38-2	phosphoric acid

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

1310-73-2	sodium hydroxide [impurity]	CO, RI
7664-38-2	phosphoric acid	CO

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

26140-60-3	Terphenyl	
1310-73-2	sodium hydroxide [impurity]	
557-05-1	zinc distearate, pure	
7664-38-2	phosphoric acid	

· **Pennsylvania Special Hazardous Substance List:**

1310-73-2	sodium hydroxide [impurity]	E
557-05-1	zinc distearate, pure	E
7664-38-2	phosphoric acid	E

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

1313-13-9	manganese dioxide	D
557-05-1	zinc distearate, pure	D, I, II

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

None of the ingredients listed.

· **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:** 09/06/2017

· **Date of preparation / last revision** 08/19/2018 / 3

· **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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

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*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-8020 RC A-1/2, A-2 Part B
- **Relevant identified uses of the substance or 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.



GHS07

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).
- **Hazard pictograms**



GHS02



GHS07

- **Signal word** Danger
- **Hazard statements**
Highly flammable liquid and vapor.
Causes serious eye irritation.
Harmful to aquatic life.
Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep container tightly closed.

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Ground/bond container and receiving equipment.
 Use explosion-proof electrical/ventilating/lighting/equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 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 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.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

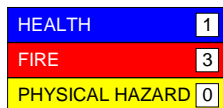
· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1
 Fire = 3
 Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 1
 Fire = 3
 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:**

68611-50-7	Polysulphide Polymer	50-100%
141-78-6	ethyl acetate	5-20%
13463-67-7	titanium dioxide	2.5-10%
108-95-2	phenol	≤0.5%
95-48-7	o-cresol	≤0.5%
50-00-0	formaldehyde	≤0.05%

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.

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- **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.
- **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:**

141-78-6	ethyl acetate	1,200 ppm
67762-90-7	Synthetic Amorphous Silica	120 mg/m ³
13463-67-7	titanium dioxide	30 mg/m ³
108-95-2	phenol	15 ppm
50-00-0	formaldehyde	0.90 ppm

· **PAC-2:**

141-78-6	ethyl acetate	1,700 ppm
67762-90-7	Synthetic Amorphous Silica	1,300 mg/m ³
13463-67-7	titanium dioxide	330 mg/m ³
108-95-2	phenol	23 ppm
50-00-0	formaldehyde	14 ppm

· **PAC-3:**

141-78-6	ethyl acetate	10000** ppm
67762-90-7	Synthetic Amorphous Silica	7,900 mg/m ³
13463-67-7	titanium dioxide	2,000 mg/m ³

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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.
- **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 remaining constituent has no known exposure limits.

141-78-6 ethyl acetate

PEL Long-term value: 1400 mg/m³, 400 ppm

REL Long-term value: 1400 mg/m³, 400 ppm

TLV Long-term value: 1440 mg/m³, 400 ppm

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

108-95-2 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

95-48-7 o-cresol

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

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REL	Long-term value: 10 mg/m ³ , 2.3 ppm
TLV	Long-term value: 20* mg/m ³ Skin: *as inhalable fraction and vapor

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/m ³ , 0.3 ppm Long-term value: 0.12 mg/m ³ , 0.1 ppm DSEN; RSEN

· Ingredients with biological limit values:

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:** 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**

Neoprene gloves

Nitrile rubber, NBR

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.

· **Eye protection:**

Safety glasses with side shields.



Tightly sealed goggles

· **Body protection:** Protective work clothing

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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 determined.

· **Change in condition**

Melting point: Undetermined.

Boiling point: Undetermined

· **Flash point:** 11 °C (51.8 °F)

· **Ignition temperature:** 460 °C (860 °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: 2.1 Vol %

Upper: 11.5 Vol %

· **Vapor pressure at 20 °C (68 °F):** 97 hPa (72.8 mm Hg)

· **Specific gravity at 20 °C (68 °F):** 1.33 g/cm³ (11.09885 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** Grams VOC/Liter [less water, less exempts] 172.8

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** Avoid high temperatures. Avoid freezing.

· **Incompatible materials:** Reacts with oxidizing agents.

· **Hazardous decomposition products:**

 Carbon monoxide and carbon dioxide

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Sulfur oxides (SO_x)
Trace amounts of the following may be formed:
Formaldehyde
Phenol
Hydrogen sulfide

* 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** May irritate the skin.
- **on the eye:**
Causes serious eye irritation.
Vapors may be irritating to the eyes.
- **Sensitization:** No sensitizing effects known.
- **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
108-95-2	phenol	3
50-00-0	formaldehyde	1

- **NTP (National Toxicology Program)**

50-00-0	formaldehyde	K
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- **OSHA-Ca (Occupational Safety & Health Administration)**

50-00-0	formaldehyde	
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* 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.

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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 | UN1133 |
| · DOT, IMDG, IATA | |
| · UN proper shipping name | Adhesives |
| · DOT | ADHESIVES |
| · IMDG, IATA | |
| · Transport hazard class(es) | |
| · DOT | |
| | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| | |
| · IMDG, IATA | |
| | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · Packing group | |
| · DOT, IMDG, IATA | II |
| · Environmental hazards: | |
| · Special marking (ADR): | Symbol (fish and tree) |
| · 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, II |

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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
95-48-7	o-cresol
50-00-0	formaldehyde

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

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

· **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
50-00-0	formaldehyde

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

· **(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
141-78-6	ethyl acetate
13463-67-7	titanium dioxide
108-95-2	phenol
95-48-7	o-cresol
50-00-0	formaldehyde

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

141-78-6	ethyl acetate	F3
108-95-2	phenol	MU, F2
95-48-7	o-cresol	CA, F2
50-00-0	formaldehyde	CA, CO, MU, F4

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

68611-50-7	Polysulphide Polymer
141-78-6	ethyl acetate
13463-67-7	titanium dioxide
108-95-2	phenol

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95-48-7	<i>o</i> -cresol
50-00-0	formaldehyde

· Pennsylvania Special Hazardous Substance List:

141-78-6	ethyl acetate	E
108-95-2	phenol	E
95-48-7	<i>o</i> -cresol	E
50-00-0	formaldehyde	ES

· Cancerogenity categories
· EPA (Environmental Protection Agency)

108-95-2	phenol	D, I
95-48-7	<i>o</i> -cresol	C
50-00-0	formaldehyde	B1

· TLV (Threshold Limit Value established by ACGIH)

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

· MAK (German Maximum Workplace Concentration)

13463-67-7	titanium dioxide	3A
108-95-2	phenol	3B
95-48-7	<i>o</i> -cresol	3A
50-00-0	formaldehyde	4

· 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:** 09/12/2017
- **Date of preparation / last revision** 08/19/2018 / 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)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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