

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/25/2017

Reviewed on 05/25/2017

1 Identification

- **Product identifier**
- **Trade name:** POLYFLEX 55 RAL 1001 TAN
- **Article number:** WP55.B.6020
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Wasser Corporation
4118 B PL NW, Suite B
Auburn, WA 98001, US
Phone 253-850-2967
- **Information department:** Product safety department
- **Emergency telephone number:**
EMERGENCY PHONE NUMBERS:
USA and Canada: 1-800 424-9300
International: 1-703 527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Liq. 3 H226 Flammable liquid and vapor.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Carc. 1B H350 May cause cancer.
STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.
- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02 GHS07 GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labeling:**
Extracts (petroleum), heavy paraffinic distillate solvent
Talc (Mg₃H₂(SiO₃)₄)
bis(4-(1,2-bis(ethoxycarbonyl)ethy-lamino)-3-methylcyclohexyl)methane
titanium dioxide
- **Hazard statements**
H226 Flammable liquid and vapor.
H317 May cause an allergic skin reaction.
H350 May cause cancer.
H372 Causes damage to organs through prolonged or repeated exposure.
- **Precautionary statements**
Keep out of reach from children.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P240 Ground/bond container and receiving equipment.
P233 Keep container tightly closed.
P242 Use only non-sparking tools.

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- P243 Take precautionary measures against static discharge.
 P264 Wash thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P272 Contaminated work clothing must not be allowed out of the workplace.
 P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P321 Specific treatment (see on this label).
 P363 Wash contaminated clothing before reuse.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P314 Get medical advice/attention if you feel unwell.
 P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.
 P405 Store locked up.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

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



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



- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

64742-95-6	Solvent naphtha (petroleum), light arom.	10-30% %
64742-04-7	Extracts (petroleum), heavy paraffinic distillate solvent	5-10% %
110-43-0	methyl amyl ketone	5-10% %
14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)	5-10% %
13463-67-7	titanium dioxide	1-5% %
136210-32-7	bis(4-(1,2-bis(ethoxycarbonyl)ethy-lamino)-3-methylcyclohexyl)methane	1-5% %
100-41-4	ethylbenzene	0,1-1% %

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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:**
Supply fresh air and to be sure call for a 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.
- **After swallowing:** If symptoms persist consult doctor.
- **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 or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **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 contaminated material as waste according to item 13.
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.

7 Handling and storage

- **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:** No special requirements.
- **Information about storage in one common storage facility:** Not required.

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- **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.

110-43-0 methyl amyl ketone

PEL Long-term value: 465 mg/m³, 100 ppm

REL Long-term value: 465 mg/m³, 100 ppm

TLV Long-term value: 233 mg/m³, 50 ppm

100-41-4 ethylbenzene

PEL Long-term value: 435 mg/m³, 100 ppm

REL Short-term value: 545 mg/m³, 125 ppm
Long-term value: 435 mg/m³, 100 ppm

TLV Long-term value: 87 mg/m³, 20 ppm
BEI

- **Ingredients with biological limit values:**

100-41-4 ethylbenzene

BEI 0.7 g/g creatinine

Medium: urine

Time: end of shift at end of workweek

Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific, semi-quantitative)

-

Medium: end-exhaled air

Time: not critical

Parameter: Ethyl benzene (semi-quantitative)

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **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:**

During mixing, handling and application: Splash goggles. Full protective clothing. Gloves (impervious). When air concentrations are not known (or above the TLV), an air-supplied respirator is required. Refer to OSHA Respiratory Protection Standard (29 CFR 1910.134). In presence of air movement, air-purifying (cartridge type) respirators are not the best protection but can be used, if you replaced them frequently. Change cartridges after 8h max or less due to their low warning properties. When in a confined space wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.

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· **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

· **Material of gloves**

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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

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

· **General Information**

· **Appearance:**

Form:	Fluid
Color:	Beige
Odor:	Aromatic
Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	151 °C (304 °F)

· **Flash point:** 41 °C (106 °F)

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

· **Ignition temperature:** 450 °C (842 °F)

· **Decomposition temperature:** Not determined.

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

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

· **Explosion limits:**

Lower:	0.7 Vol %
Upper:	7.5 Vol %

· **Vapor pressure at 20 °C (68 °F):** 5 hPa (4 mm Hg)

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- | | |
|--|--|
| · Density at 20 °C (68 °F): | 1.2 g/cm ³ (10.014 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. |
| · Other information | No further relevant information available. |

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:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

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

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

64742-95-6 Solvent naphtha (petroleum), light arom.

Oral	LD50	>6800 mg/kg (rat)
Dermal	LD50	>3400 mg/kg (rab)
Inhalative	LC50/4 h	>10.2 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** 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)**

14807-96-6	Talc (Mg3H2(SiO3)4)	3
13463-67-7	titanium dioxide	2B
1330-20-7	xylene	3
7631-86-9	silicon dioxide, chemically prepared	3
100-41-4	ethylbenzene	2B

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14808-60-7	Quartz (SiO ₂)	I
111-76-2	2-butoxyethanol	3
· NTP (National Toxicology Program)		
14808-60-7	Quartz (SiO ₂)	K
· 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.
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **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 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, ADR, IMDG, IATA	UN1263
· UN proper shipping name	
· DOT	Paint
· ADR	1263 Paint
· IMDG, IATA	PAINT

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· **Transport hazard class(es)**· **DOT**

· **Class** 3 Flammable liquids
 · **Label** 3

· **ADR, IMDG, IATA**

· **Class** 3 Flammable liquids
 · **Label** 3

· **Packing group**· **DOT, ADR, IMDG, IATA** III· **Environmental hazards:** Not applicable.· **Special precautions for user** Warning: Flammable liquids· **Danger code (Kemler):** 30· **EMS Number:** F-E,S-E· **Stowage Category** A· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.· **Transport/Additional information:**· **DOT**

· **Quantity limitations** On passenger aircraft/rail: 60 L
 On cargo aircraft only: 220 L

· **ADR**

· **Excepted quantities (EQ)** Code: E1
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 1000 ml

· **IMDG**

· **Limited quantities (LQ)** 5L
 · **Excepted quantities (EQ)** Code: E1
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":** UN 1263 PAINT, 3, III

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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):**

None of the ingredients is listed.

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

1330-20-7 xylene

1344-28-1 aluminium oxide

7727-43-7 barium sulphate, natural

100-41-4 ethylbenzene

1313-13-9 manganese dioxide

111-76-2 2-butoxyethanol

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

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

13463-67-7 titanium dioxide

100-41-4 ethylbenzene

14808-60-7 Quartz (SiO₂)

· **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.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

1330-20-7 xylene

I

7727-43-7 barium sulphate, natural

D, CBD(inh), NL(oral)

100-41-4 ethylbenzene

D

1313-13-9 manganese dioxide

D

111-76-2 2-butoxyethanol

NL

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

Talc (Mg₃H₂(SiO₃)₄)

A4

titanium dioxide

A4

xylene

A4

aluminium oxide

A4

ethylbenzene

A3

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

13463-67-7 titanium dioxide

14808-60-7 Quartz (SiO₂)

· **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-determining components of labeling:

*Extracts (petroleum), heavy paraffinic distillate solvent**Talc (Mg₃H₂(SiO₃)₄)**bis(4-(1,2-bis(ethoxycarbonyl)ethy-lamino)-3-methylcyclohexyl)methane**titanium dioxide*

· Hazard statements

*H226 Flammable liquid and vapor.**H317 May cause an allergic skin reaction.**H350 May cause cancer.**H372 Causes damage to organs through prolonged or repeated exposure.*

· Precautionary statements

*P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.**P241 Use explosion-proof electrical/ventilating/lighting/equipment.**P260 Do not breathe dust/fume/gas/mist/vapors/spray.**P280 Wear protective gloves/protective clothing/eye protection/face protection.**P240 Ground/bond container and receiving equipment.**P233 Keep container tightly closed.**P242 Use only non-sparking tools.**P243 Take precautionary measures against static discharge.**P264 Wash thoroughly after handling.**P270 Do not eat, drink or smoke when using this product.**P272 Contaminated work clothing must not be allowed out of the workplace.**P201 Obtain special instructions before use.**P202 Do not handle until all safety precautions have been read and understood.**P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.**P321 Specific treatment (see on this label).**P363 Wash contaminated clothing before reuse.**P308+P313 IF exposed or concerned: Get medical advice/attention.**P333+P313 If skin irritation or rash occurs: Get medical advice/attention.**P314 Get medical advice/attention if you feel unwell.**P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.**P405 Store locked up.**P403+P235 Store in a well-ventilated place. Keep cool.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*

· National regulations:

· Additional classification according to Decree on Hazardous Materials:

Carcinogenic hazardous material group III (dangerous).

· 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.*

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

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Product safety department

· **Contact:** HS REG.DEPART.REG.SS

· **Date of preparation / last revision** 05/25/2017 / -

· **Abbreviations and acronyms:**

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

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)

VOC: Volatile Organic Compounds (USA, EU)

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. 3: Flammable liquids – Category 3

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 1B: Carcinogenicity – Category 1B

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

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acc. to OSHA HCS


Printing date 12/08/2016

Reviewed on 06/10/2015

1 Identification

- **Product identifier**
- **Trade name:** POLYFLEX WP55A CATALYST
- **Article number:** WP55A.0
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Wasser Corporation
4118 B PL NW, Suite B
Auburn, WA 98001, US
Phone 253-850-2967
- **Information department:** Product safety department
- **Emergency telephone number:**
EMERGENCY PHONE NUMBERS:
USA and Canada: 1-800 424-9300
International: 1-703 527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Liq. 3 H226 Flammable liquid and vapor.
Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Carc. 2 H351 Suspected of causing cancer.
STOT SE 3 H335 May cause respiratory irritation.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**

 GHS02 GHS07 GHS08
- **Signal word** Danger
- **Hazard-determining components of labeling:**
diphenylmethanediisocyanate, isomers and homologues
4,4'-methylenediphenyl diisocyanate
o-(p-isocyanatobenzyl)phenyl isocyanate
- **Hazard statements**
H226 Flammable liquid and vapor.
H332 Harmful if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.

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Trade name: POLYFLEX WP55A CATALYST

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H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Keep out of reach from children.

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P284 [In case of inadequate ventilation] wear respiratory protection.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P240 Ground/bond container and receiving equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing must not be allowed out of the workplace.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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).

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P363 Wash contaminated clothing before reuse.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

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

P314 Get medical advice/attention if you feel unwell.

P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

NFPA ratings (scale 0 - 4)



Health = 2

Fire = 2

Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = *2

Fire = 2

Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

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· **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	30-60%%
101-68-8	4,4'-methylenediphenyl diisocyanate	10-30%%
64742-95-6	Solvent naphtha (petroleum), light arom.	10-30%%
5873-54-1	o-(p-isocyanatobenzyl)phenyl isocyanate	1-5%%

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
Supply fresh air and to be sure call for a 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:** If symptoms persist consult doctor.
- **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 or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

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- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
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:**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	0.15 mg/m ³
101-68-8	4,4'-methylenediphenyl diisocyanate	0.45 mg/m ³

· **PAC-2:**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	3.6 mg/m ³
101-68-8	4,4'-methylenediphenyl diisocyanate	5 mg/m ³

· **PAC-3:**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	22 mg/m ³
101-68-8	4,4'-methylenediphenyl diisocyanate	55 mg/m ³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **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.

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 constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

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101-68-8 4,4'-methylenediphenyl diisocyanate

PEL	Ceiling limit value: 0.2 mg/m ³ , 0.02 ppm
REL	Long-term value: 0.05 mg/m ³ , 0.005 ppm Ceiling limit value: 0.2* mg/m ³ , 0.02* ppm *10-min
TLV	Long-term value: 0.051 mg/m ³ , 0.005 ppm

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **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.
- Avoid contact with the eyes and skin.

· **Breathing equipment:**

During mixing, handling and application: Splash goggles. Full protective clothing. Gloves (impervious). Wear suitable respiratory equipment. When air concentrations are not known (or above the TLV), an air-supplied respirator is required. Refer to OSHA Respiratory Protection Standard (29 CFR 1910.134). In presence of air movement, air-purifying (cartridge type) respirators are not the best protection but can be used, if you replaced them frequently. Change cartridges after 8h max or less due to their low warning properties. When in a confined space wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.

· **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

· **Material of gloves**

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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

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

· **General Information**

· **Appearance:**

Form: Fluid

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· Color:	Amber colored
· Odor:	Light
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	190 °C (374 °F)
· Flash point:	42 °C (108 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	400 °C (752 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	0.4 Vol %
Upper:	7.5 Vol %
· Vapor pressure at 20 °C (68 °F):	5 hPa (4 mm Hg)
· Density at 20 °C (68 °F):	1.13 g/cm ³ (9.43 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.
· Other information	No further relevant information available.

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:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

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11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

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

101-68-8 4,4'-methylenediphenyl diisocyanate

Oral	LD50	2200 mg/kg (mouse)
------	------	--------------------

64742-95-6 Solvent naphtha (petroleum), light arom.

Oral	LD50	>6800 mg/kg (rat)
------	------	-------------------

Dermal	LD50	>3400 mg/kg (rab)
--------	------	-------------------

Inhalative	LC50/4 h	>10.2 mg/l (rat)
------------	----------	------------------

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

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

- **Sensitization:**

Sensitization possible through inhalation.

Sensitization possible through skin contact.

- **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)**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	3
-----------	--	---

101-68-8	4,4'-methylenediphenyl diisocyanate	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.

- **Additional ecological information:**

- **General notes:**

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

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

Danger to drinking water if even small quantities leak into the ground.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

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· **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, ADR, IMDG, IATA | UN1263 |
| · UN proper shipping name | |
| · DOT | Paint related material |
| · ADR | 1263 Paint related material |
| · IMDG, IATA | PAINT RELATED MATERIAL |
| · Transport hazard class(es) | |
| · DOT | |
| |  |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| | |
| · ADR, IMDG, IATA | |
| |  |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · Packing group | |
| · DOT, ADR, IMDG, IATA | III |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Warning: Flammable liquids |
| · Danger code (Kemler): | 30 |
| · EMS Number: | F-E, <u>S-E</u> |
| · Stowage Category | A |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

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· **Transport/Additional information:**

· **DOT**

· **Quantity limitations**

On passenger aircraft/rail: 60 L

On cargo aircraft only: 220 L

· **ADR**

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **IMDG**

· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN 1263 PAINT RELATED MATERIAL, 3, III

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):**

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

101-68-8 4,4'-methylenediphenyl diisocyanate

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

All ingredients are listed.

· **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.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

CBD

101-68-8 4,4'-methylenediphenyl diisocyanate

D, CBD

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

diphenylmethanediisocyanate, isomers and homologues

4,4'-methylenediphenyl diisocyanate

o-(p-isocyanatobenzyl)phenyl isocyanate

· **Hazard statements**

H226 Flammable liquid and vapor.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P284 [In case of inadequate ventilation] wear respiratory protection.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P240 Ground/bond container and receiving equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing must not be allowed out of the workplace.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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).

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P363 Wash contaminated clothing before reuse.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

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

P314 Get medical advice/attention if you feel unwell.

P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Product safety department

· **Contact:** HS REG.DEPART.REG.SS

· **Date of preparation / last revision** 12/08/2016 / -

· **Abbreviations and acronyms:**

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

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)

VOC: Volatile Organic Compounds (USA, EU)

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

Flam. Liq. 3: Flammable liquids – Category 3

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

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

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

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

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1 Identification

- **Product identifier**
- **Trade name:** POLYFLEX 55 BASE RESIN GREY RAL 7024
- **Article number:** WP55B.083
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Wasser Corporation
4118 B PL NW, Suite B
Auburn, WA 98001, US
Phone 253-850-2967
- **Information department:** Product safety department
- **Emergency telephone number:**
EMERGENCY PHONE NUMBERS:
USA and Canada: 1-800 424-9300
International: 1-703 527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Liq. 3 H226 Flammable liquid and vapor.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Carc. 1B H350 May cause cancer.
- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02 GHS07 GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labeling:**
Extracts (petroleum), heavy paraffinic distillate solvent
bis(4-(1,2-bis(ethoxycarbonyl)ethy-lamino)-3-methylcyclohexyl)methane
titanium dioxide
- **Hazard statements**
H226 Flammable liquid and vapor.
H317 May cause an allergic skin reaction.
H350 May cause cancer.
- **Precautionary statements**
Keep out of reach from children.
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P240 Ground/bond container and receiving equipment.
- P233 Keep container tightly closed.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P272 Contaminated work clothing must not be allowed out of the workplace.
- P201 Obtain special instructions before use.

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- P202 Do not handle until all safety precautions have been read and understood.
- P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P321 Specific treatment (see on this label).
- P363 Wash contaminated clothing before reuse.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.
- P405 Store locked up.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
- NFPA ratings (scale 0 - 4)



- HMIS-ratings (scale 0 - 4)

HEALTH	2	Health = *2
FIRE	2	Fire = 2
REACTIVITY	0	Reactivity = 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 of the substances listed below with nonhazardous additions.

· Dangerous components:

64742-95-6	Solvent naphtha (petroleum), light arom.	10-30%%
64742-04-7	Extracts (petroleum), heavy paraffinic distillate solvent	5-10%%
110-43-0	methyl amyl ketone	5-10%%
13463-67-7	titanium dioxide	1-5%%
136210-32-7	bis(4-(1,2-bis(ethoxycarbonyl)ethy-lamino)-3-methylcyclohexyl)methane	1-5%%
1333-86-4	Carbon black	0.1-1%%
100-41-4	ethylbenzene	0.1-1%%

4 First-aid measures

- Description of first aid measures
- After inhalation:
Supply fresh air and to be sure call for a 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.

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Trade name: POLYFLEX 55 BASE RESIN GREY RAL 7024

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- **After swallowing:** *If symptoms persist consult doctor.*
- **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 or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** *Water with full jet*
- **Special hazards arising from the substance or mixture** *No further relevant information available.*
- **Advice for firefighters**
- **Protective equipment:** *No special measures required.*

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **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 contaminated material as waste according to item 13.
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:**

110-43-0	methyl amyl ketone	150 ppm
13463-67-7	titanium dioxide	30 mg/m ³
108-65-6	2-methoxy-1-methylethyl acetate	50 ppm
7631-86-9	silicon dioxide, chemically prepared	18 mg/m ³
108-83-8	2,6-dimethylheptan-4-one	75 ppm
1344-28-1	aluminium oxide	15 mg/m ³
8052-41-3	Stoddard solvent	300 mg/m ³
1330-20-7	xylene	130 ppm
1333-86-4	Carbon black	9 mg/m ³
546-93-0	Magnesite	45 mg/m ³
100-41-4	ethylbenzene	33 ppm
14808-60-7	Quartz (SiO ₂)	0.075 mg/m ³
1314-23-4	zirconium dioxide	14 mg/m ³
57-55-6	Methyl glycol	30 mg/m ³
78-83-1	butanol	150 ppm
111-76-2	2-butoxyethanol	60 ppm

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123-86-4	<i>n-butyl acetate</i>	5 ppm
34590-94-8	<i>(2-methoxymethylethoxy)propanol</i>	150 ppm
	<i>dibutyltin dilaurate</i>	1.1 mg/m ³
872-50-4	<i>N-methyl-2-pyrrolidone</i>	30 ppm
70657-70-4	<i>2-methoxypropyl acetate</i>	50 ppm
7447-41-8	<i>lithium chloride</i>	2.3 mg/m ³

· PAC-2:

110-43-0	<i>methyl amyl ketone</i>	670 ppm
13463-67-7	<i>titanium dioxide</i>	330 mg/m ³
108-65-6	<i>2-methoxy-1-methylethyl acetate</i>	1,000 ppm
7631-86-9	<i>silicon dioxide, chemically prepared</i>	740 mg/m ³
108-83-8	<i>2,6-dimethylheptan-4-one</i>	330 ppm
1344-28-1	<i>aluminium oxide</i>	170 mg/m ³
8052-41-3	<i>Stoddard solvent</i>	1,800 mg/m ³
1330-20-7	<i>xylene</i>	920* ppm
1333-86-4	<i>Carbon black</i>	99 mg/m ³
546-93-0	<i>Magnesite</i>	260 mg/m ³
100-41-4	<i>ethylbenzene</i>	1100* ppm
14808-60-7	<i>Quartz (SiO₂)</i>	33 mg/m ³
1314-23-4	<i>zirconium dioxide</i>	110 mg/m ³
57-55-6	<i>Methyl glycol</i>	1,300 mg/m ³
78-83-1	<i>butanol</i>	1,300 ppm
111-76-2	<i>2-butoxyethanol</i>	120 ppm
123-86-4	<i>n-butyl acetate</i>	200 ppm
34590-94-8	<i>(2-methoxymethylethoxy)propanol</i>	1700* ppm
	<i>dibutyltin dilaurate</i>	8 mg/m ³
872-50-4	<i>N-methyl-2-pyrrolidone</i>	32 ppm
70657-70-4	<i>2-methoxypropyl acetate</i>	1,000 ppm
7447-41-8	<i>lithium chloride</i>	25 mg/m ³

· PAC-3:

110-43-0	<i>methyl amyl ketone</i>	4000* ppm
13463-67-7	<i>titanium dioxide</i>	2,000 mg/m ³
108-65-6	<i>2-methoxy-1-methylethyl acetate</i>	5000* ppm
7631-86-9	<i>silicon dioxide, chemically prepared</i>	4,500 mg/m ³
108-83-8	<i>2,6-dimethylheptan-4-one</i>	2000* ppm
1344-28-1	<i>aluminium oxide</i>	990 mg/m ³
8052-41-3	<i>Stoddard solvent</i>	29500** mg/m ³
1330-20-7	<i>xylene</i>	2500* ppm
1333-86-4	<i>Carbon black</i>	590 mg/m ³
546-93-0	<i>Magnesite</i>	1,600 mg/m ³
100-41-4	<i>ethylbenzene</i>	1800* ppm
14808-60-7	<i>Quartz (SiO₂)</i>	200 mg/m ³
1314-23-4	<i>zirconium dioxide</i>	680 mg/m ³

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57-55-6	Methyl glycol	7,900 mg/m ³
78-83-1	butanol	8000* ppm
111-76-2	2-butoxyethanol	700 ppm
123-86-4	n-butyl acetate	3000* ppm
34590-94-8	(2-methoxymethylethoxy)propanol	9900** ppm
	dibutyltin dilaurate	48 mg/m ³
872-50-4	N-methyl-2-pyrrolidone	190 ppm
70657-70-4	2-methoxypropyl acetate	5,000 ppm
7447-41-8	lithium chloride	150 mg/m ³

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:** 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.

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.

110-43-0 methyl amyl ketone

PEL Long-term value: 465 mg/m³, 100 ppm

REL Long-term value: 465 mg/m³, 100 ppm

TLV Long-term value: 233 mg/m³, 50 ppm

1333-86-4 Carbon black

PEL Long-term value: 3.5 mg/m³

REL Long-term value: 3.5* mg/m³
*0.1 in presence of PAHs; See Pocket Guide Apps.A+C

TLV Long-term value: 3* mg/m³
*inhalable fraction

100-41-4 ethylbenzene

PEL Long-term value: 435 mg/m³, 100 ppm

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REL	Short-term value: 545 mg/m ³ , 125 ppm Long-term value: 435 mg/m ³ , 100 ppm
TLV	Long-term value: 87 mg/m ³ , 20 ppm
BEI	

· Ingredients with biological limit values:

100-41-4 ethylbenzene

BEI	0.7 g/g creatinine Medium: urine Time: end of shift at end of workweek Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific, semi-quantitative)
-	Medium: end-exhaled air Time: not critical Parameter: Ethyl benzene (semi-quantitative)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **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:**

During mixing, handling and application: Splash goggles. Full protective clothing. Gloves (impervious). Wear suitable respiratory equipment. When air concentrations are not known (or above the TLV), an air-supplied respirator is required. Refer to OSHA Respiratory Protection Standard (29 CFR 1910.134). In presence of air movement, air-purifying (cartridge type) respirators are not the best protection but can be used, if you replaced them frequently. Change cartridges after 8h max or less due to their low warning properties. When in a confined space wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.

· **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

· **Material of gloves**

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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:



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

· Form:	Fluid
· Color:	Grey
· Odor:	Light
· Odor threshold:	Not determined.

· pH-value: Not determined.

· Change in condition

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	151 °C (304 °F)

· Flash point: 41 °C (106 °F)

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 450 °C (842 °F)

· Decomposition temperature: Not determined.

· Auto igniting: Product is not selfigniting.

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

· Explosion limits:

· Lower:	0.7 Vol %
· Upper:	7.5 Vol %

· Vapor pressure at 20 °C (68 °F): 5 hPa (4 mm Hg)

· Density at 20 °C (68 °F): 1.19 g/cm³ (9.931 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.

· Other information: No further relevant information available.

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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:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

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

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

64742-95-6 Solvent naphtha (petroleum), light arom.

Oral	LD50	>6800 mg/kg (rat)
Dermal	LD50	>3400 mg/kg (rab)
Inhalative	LC50/4 h	>10.2 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** 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)**

14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)	3
13463-67-7	titanium dioxide	2B
7631-86-9	silicon dioxide, chemically prepared	3
1330-20-7	xylene	3
1333-86-4	Carbon black	2B
100-41-4	ethylbenzene	2B
14808-60-7	Quartz (SiO ₂)	1
111-76-2	2-butoxyethanol	3

· **NTP (National Toxicology Program)**

14808-60-7	Quartz (SiO ₂)	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.

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- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
*Water hazard class 3 (Self-assessment): extremely hazardous for water
 Do not allow product to reach ground water, water course or sewage system, even in small quantities.
 Danger to drinking water if even extremely small quantities leak into the ground.*
- **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 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 | UN1263 |
| · DOT, ADR, IMDG, IATA | |
| · UN proper shipping name | Paint |
| · DOT | 1263 Paint |
| · ADR | PAINT |
| · IMDG, IATA | |
| · Transport hazard class(es) | |
| · DOT | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| <hr style="border-top: 1px dashed #ccc;"/> | |
| · ADR, IMDG, IATA | |
|  | |
| · Class | 3 Flammable liquids |
| · Label | 3 |
| · Packing group | |
| · DOT, ADR, IMDG, IATA | III |

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· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	30
· EMS Number:	F-E,S-E
· Stowage Category	A
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L
· ADR	
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1263 PAINT, 3, III

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):

1344-28-1 aluminium oxide

1330-20-7 xylene

100-41-4 ethylbenzene

147-14-8 Phthalocyanine Blue

111-76-2 2-butoxyethanol

872-50-4 N-methyl-2-pyrrolidone

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65

· Chemicals known to cause cancer:

13463-67-7 titanium dioxide

1333-86-4 Carbon black

100-41-4 ethylbenzene

14808-60-7 Quartz (SiO₂)

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· **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:**

872-50-4 | N-methyl-2-pyrrolidone

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

1330-20-7	xylene	I
100-41-4	ethylbenzene	D
111-76-2	2-butoxyethanol	NL

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

Talc (Mg ₃ H ₂ (SiO ₃) ₄)	A4
titanium dioxide	A4
aluminium oxide	A4
xylene	A4
Carbon black	A4
ethylbenzene	A3

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

13463-67-7	titanium dioxide
1333-86-4	Carbon black
14808-60-7	Quartz (SiO ₂)

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

· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

Extracts (petroleum), heavy paraffinic distillate solvent
bis(4-(1,2-bis(ethoxycarbonyl)ethy-lamino)-3-methylcyclohexyl)methane
titanium dioxide

· **Hazard statements**

H226 Flammable liquid and vapor.
H317 May cause an allergic skin reaction.
H350 May cause cancer.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P240 Ground/bond container and receiving equipment.
P233 Keep container tightly closed.
P242 Use only non-sparking tools.

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P243	Take precautionary measures against static discharge.
P272	Contaminated work clothing must not be allowed out of the workplace.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P321	Specific treatment (see on this label).
P363	Wash contaminated clothing before reuse.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P370+P378	In case of fire: Use for extinction: CO ₂ , powder or water spray.
P405	Store locked up.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

· **Additional classification according to Decree on Hazardous Materials:**

Carcinogenic hazardous material group III (dangerous).

· **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.

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

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Product safety department

· **Contact:** HS REG.DEPART.REG.SS

· **Date of preparation / last revision** 12/08/2016 / -

· **Abbreviations and acronyms:**

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

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)

VOC: Volatile Organic Compounds (USA, EU)

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. 3: Flammable liquids – Category 3

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 1B: Carcinogenicity – Category 1B