Silicone Sealant 5161 SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	Silicone Powerseal Tub & Tile 300ml

DISTRIBUTOR:TOOLWAY INDUSTRIES LTD.ADDRESS:280 Hunter's Valley Road, Woodbridge, ON, Canada L4H 3V9.PHONE:(905) 326-5450

EMERGENCY +82-43-537-4932 **PHONE:**

PRODUCT USE:		Sealant and adhesive	
PREPARED BY:		Toolway Industries Ltd.	

SECTION 1 NOTES: NONE

SECTION 2: HAZARDS IDENTIFICATION

Hazard Classification:

Skin Sensitization: Category 1 Chronic aquatic toxicity: Category 3 Label Elements Including Precautionary Statements:



Symbol:

Signal Word: Warning

Hazard Risk Statement:

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

Precautionary Statement:

Prevention:

P261 Inhalation of (dust, fume, gas, mist, steam, spray) Avoid.

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

P272 Do not take contaminated clothing out of the workplace.

P273 Do not discharge into the environment.

P280 Wear protective gloves.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P321 Treat symptomatically in the first aid instructions of the Safety Data Sheet.

P333 + P313 If skin irritation or erythema develops, get medical advice / attention.

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

Storage: Not applicable

Disposal:

P501 Dispose of contents and container in accordance with the contents of the Waste Management Act.

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Other Hazard. Risk which are not included in the classification criteria: None known

SECTION 2 NOTES: NONE

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

NO	Chemical Name	CAS NO	%(w/w	ACGIH TLV
1	Silicon dioxide	7631-86-9	>= 1.0 - < 10.0%	KE-31032
2	Polydimethylsiloxane hydroxy-terminated	70131-67-8	>= 80.0 - < 90.0%	KE-31115
3	4,5-Dichloro-2-n- octyl-4-isothiazolin- 3-one	64359-81-5	>= 0.025 - < 0.25%	2017-1-764
				97-3-277

SECTION 3 NOTES: NONE

SECTION 4: FIRST AID MEASURES

First aid skills required General measures:

Emergency responders should pay attention to self-protection and use recommended protective clothing (chemical protective gloves, stain protection equipment). If exposed, see Section 8, Personal protective equipment.

If in Eyes: Move person to fresh air; Seek medical attention if symptoms occur.

If on Skin: Immediately wash skin with soap and plenty of water. Take off and wash contaminated work clothes and shoes. Seek medical advice if irritation persists. Wash work clothes before reuse. Discard items that cannot be removed, including leather goods such as shoes, belts and wristbands. If Inhaled: Wash eyes thoroughly with water for several minutes. After 1-2 minutes, remove the contact lens and wash again for a few minutes. Consult your eye doctor if symptoms appear. Eye washers must be installed in the workplace.

If Ingested: No first aid required. Most important symptoms and effects, both acute and delayed: First aid tips (above) and instructions for immediate medical attention and special care needs (below). In addition to the information present, additional symptoms and effects are described in Section 11 Toxicological Information. Perform immediate medical attention and special treatment

Other Notes to physician: No special antidote. Treatment for exposure is dependent on the patient's symptoms and clinical condition Must be followed.

SECTION 4 NOTES: NONE

SECTION 5: FIRE-FIGHTING MEASURES

Suitable (and Unsuitable) Extinguishing Media:

Suitable: On large fires use dry chemical or foam. On small fires use CO2 or dry chemical. Water can be used to cool fire exposed containers

Unsuitable: Water Do not allow extinguishing medium to contact container contents.

Specific Hazards Arising from the Chemical(e.g.nature of any Hazardous Combustion

Products): Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde. Nitrogen oxides. Metal oxides

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Special Protective Equipment and Precautions for Fire-Fighters: Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals.

SECTION 5 NOTES: NONE

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment:

Wear personal protective equipment. Follow safe handling information and personal protective equipment recommendations

Environmental Precautions:

Do not discharge the product above the regulated levels into the aquatic environment. In a safe way, make sure there are no further leaks or spills. Collect and dispose of contaminated wash water. If the spill is severe and uncontrollable, report to local authorities.

Methods for Cleaning up:

Wipe up or scrape and place in container for recovery or disposal. Local or national regulations may apply to the release and disposal of materials and items used in the removal of this material and spilled material. Check the regulations that apply. In case of large spills, install embankments or other suitable containment to prevent material from spreading. If the trapped material can be pumped up, Keep in container. Section 13, Section 15 of this Safety Data Sheet provides information on specific local or national requirements.

Note: Sections 7, 8, 11, 12 and 13.

SECTION 6 NOTES: NONE

SECTION 7: HANDLING AND STORAGE

Handling Precautions:

Do not get on skin or clothing. Do not swallow. Avoid eye contact. Efforts should be made to prevent spills or waste and to minimize emissions to the environment. Handle in accordance with good industrial hygiene and safety practice.

Use only with adequate ventilation. See appropriate engineering controls for the sections on exposure prevention and personal protection.

Storage Conditions(including any incompatibilities):

Keep in properly labeled containers. Store in a locked place. Store in accordance with local regulations. Do not store together with the following product types: Strong oxidizing agents. Unsuitable container material: unknown.

SECTION 7 NOTES: NONE

SECTION 8: PREVENTIVE MEASURES/PERSONAL PROTECTIVE EQUIPMENT

Occupational Exposure Limit Values, Biological Limit Values:

Ingredients	Rule	List type	Exposure Limits
Silicon dioxide	Dow IHG	TWA Respirable Dust	0.2 mg/m3
	KR OEL	TWA	10 mg/m3
4,5-Dichloro-2-n-octyl-4- isothiazolin-3-one	Dow IHG	TWA	0.06 mg/m3

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	Dow IHG	STEL	0.1 mg/m3

Exposure prevention

Appropriate Engineering Controls: Use local ventilation or other mechanical equipment to maintain a level of airflow that meets exposure limits or guidelines. If guidelines or exposure restrictions do not apply, use a regular exhaust system. Some operating facilities may require local exhaust.

Personal protective equipment

Eye protection: Use safety goggles.

Skin protection

Hand protection: Use gloves chemically resistant to this material. Examples of safety gloves for chemicals: neoprene nitrile / butadiene rubber (nitrile or NBR) Polyvinyl chloride ("PVC" or "vinyl"). Note: The selection of special gloves for specific applications and periods of use in the workplace is not only a guide / product specification provided by the supplier of the gloves, but also potential physical reactions with the glove material, chemicals that may be handled, and physical requirements (cutting / punk). Protection, thermal protection) and all other necessary workplace factors should be considered. **Body protection:** Use protective clothing chemically resistant to this material. Depending on the nature of the work, select and use appropriate protective equipment such as safety gloves, safety gloves, safety boots, protective aprons or full body protective clothing.

Respiratory Protection: Wear respiratory protection if there is the potential to exceed the exposure limit or guidelines. If no exposure limits have been established and you have experienced respiratory irritation or discomfort or if adverse effects have been identified during the risk assessment process, wear respiratory protection. In most cases, no respirator is needed; However, if you feel uncomfortable, use a certified air-purifying respirator.

Effective air-purifying respirator types include: Purifiers for organic compounds.

SECTION 8 NOTES: NONE

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.) Physical state paste **Color** According to the color product label Odor acetic acid Odor threshold No data available pH Not applicable Melting point / range No data available Freezing point No data available Boiling Point (760 mmHg) Not applicable Flash point Seta closed cup 100 ° C Evaporation Rate (Butyl Acetate = 1) Not applicable Flammable (solid, gas) Not classified as flammable dangerous. Lower explosion limit No data available Upper explosion limit No data available Vapor Pressure Not Applicable Relative vapor density (air = 1) No data available Specific gravity (water = 1) 1.04 Acceptance No data available n Octanol / water partition coefficient Not available. Ignition temperature No data available **Decomposition temperature** No data available

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Silicone Sealant 5161 Viscosity Factor Not applicable Dynamic viscosity Not applicable Explosive, non-explosive Oxidizing The substance or mixture is not classified as oxidizing. Molecular weight No data available Particle Size No data available

Note: The physical data presented above are representative only and are not to be construed as specific.

SECTION 9 NOTES: NONE

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not classified as a reaction hazard. Chemical stability and possibility of hazardous reactions: Stable under normal conditions. Possibility of hazardous reactions: May react with strong oxidizing agents. Conditions to Avoid: Unknown. Incompatible Materials: Oxidizers Hazardous Decomposition Products: Decomposed products may include but are not limited to: Formaldehyde

SECTION 10 NOTES: NONE

SECTION 11: TOXICOLOGICAL INFORMATION

Information on the likely Routes of Exposure:

Acute toxicity

Acute Oral Toxicity

Toxicity is very low if swallowed. Drinking small amounts of water has no adverse consequences. Single dose oral LD50 of this product has not been determined. Based on the ingredient information: LD50,> 5,000 mg / kg estimate

Acute dermal toxicity

Contact with the skin for a long time does not lead to absorption of harmful amounts. Dermal LD50 has not been determined. Based on the ingredient information:

LD50,> 2,000 mg / kg estimate

Acute inhalation toxicity

Short exposures (in minutes) cannot cause adverse effects. Steam from heated material May cause irritation.

The LC50 has not been determined.

Skin Corrosive or Irritant

Prolonged exposure does not cause serious irritation to the skin.

Serious eye damage or irritation

May irritate the eye to some extent.

Skin and Respiratory Sensitization Skin Sensitization:

Contains components that cause skin sensitization allergy in guinea pigs.

Respiratory Sensitization:

No data available.

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Specific Target Organ Systemic Toxicity (Single Exposure)

Available data indicate that this product is not a specific target organ toxicity single exposure substance. **Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Based on data on ingredients, it is expected that repeated exposure will not cause significant adverse effects.

Carcinogenic

Similar substances do not cause cancer in long-term animal experiments using exposure routes associated with industrial use.

Did not. Positive results have been reported in other experiments with exposure routes not related to industrial use.

Teratogenicity

Components have no effect on birth defects or embryos in animal experiments.

Reproductive toxicity

No data available.

Germ cell mutagenicity

Containing substances are negative in genetic toxicity studies in in vitro experiments. In animal testing Genotoxicity studies contain negative components.

Aspiration hazard

Based on physical properties, there is no potential for inhalation hazards.

Ingredients affecting toxicity:

Silicon dioxide

Acute inhalation toxicity

Did not Reach Maximum Concentration LC50, Rat, 4 h, Dust or Mist,> 2.08 mg / I.

Polydimethylsiloxane hydroxy-terminated

Acute inhalation toxicity

LC50 has not been determined.

4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one

Acute inhalation toxicity

LC50, rat, male and female, 4 h, dust or mist, 0.26 mg / I OECD Test Guideline 403

SECTION 11 NOTES: NONE

SECTION 12: ENVIRONMENTAL INFORMATION

Ecotoxicity Silicon dioxide Acute Fish Toxicity Inherently non-toxic to aquatic organisms (on acute basis). (LC50 / EC50 / EL50 / LL50> 100mg / L, most Sensitive species). LC50, Danio rerio (Zebrafish), 96 h, 5,000-10,000 mg / I Acute Toxicity of Invertebrates EC50, Daphnia magna (Water flea), 24 h,> 1,000 mg / I Toxic to Algae / Aquatic Plants EC50, Pseudokirchneriella subcapitata (green algae), 72 h, biomass, 440 mg / I Polydimethylsiloxane hydroxy-terminated Acute Toxicity of Invertebrates Inherently nontoxic to aquatic organisms (on acute basis). (LC50 / EC50 / EL50 / LL50> 100mg / L, most Sensitive species).

EC50, Daphnia magna (Water flea), 48 h, 493 mg / l, OECD Test Guideline 202

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Silicone Sealant 5161 **Chronic Toxicity of Invertebrates** NOEC, Daphnia magna (Water flea), 21 d, 2,320 mg / I Toxic to terrestrial organisms Acute, virtually no toxicity in birds (LD50> 2000 mg / kg). 4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one **Acute Fish Toxicity** On acute basis, this material is highly toxic to aquatic organisms (in most sensitive species). LC50 / EC50 / EL50 / LL50 <0.1 mg / L) LC50, Oncorhynchus mykiss (rainbow trout), flow-through, 96 h, 0.0027 mg / I, OECD Test Guideline 203 or equivalent LC50, Bluegill macrochirus, flow-through, 96 h, 0.014 mg / I, OECD Test Guideline 203 or equivalent Acute Toxicity of Invertebrates EC50, Daphnia magna (Water flea), 48 h, 0.0057 mg / l **Toxic to Algae / Aquatic Plants** EbC50, Pseudokirchneriella subcapitata (green algae), exponential test, 72 h, 0.048 mg / I, OECD Exam Guideline 201 ErC50, Pseudokirchneriella subcapitata (green algae), exponential test, 72 h, 0.077 mg / I, OECD Exam Guideline 201 **Bacterial toxicity** EC50, activated sludge, respiratory rate, 5.70 mg / I **Chronic Toxicity of Fish** NOEC, Oncorhynchus mykiss (rainbow trout), flow-through, 97 d, increase, 0.00056 mg / I **Chronic Toxicity of Invertebrates** NOEC, Daphnia magna (Water flea), 21 d, 0.00063 mg / I Persistence and Degradability Silicon dioxide Biodegradability: Not biodegradable Polydimethylsiloxane hydroxy-terminated **Biodegradability:** Chemical degradation in the environment is expected. 4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one Biodegradability: Following strict OECD test guidelines, this material is not biodegradable at any time. However, this does not mean that the substance cannot be biodegradable under environmental conditions. Consider rapid decomposition. Biodegradation (Marine metabolism) CAS No. 64359-81-5 t 1/2 Anaerobic less than 1 hour. CAS Number 64359-81-5 t 1/2 Aerobic Less than 1 hour **Bioaccumulative potential** Silicon dioxide **Bioaccumulation Potential:** The separation of n-octanol from water does not apply. Polydimethylsiloxane hydroxy-terminated Bioaccumulation Potential: Low bioaccumulation potential (BCF <100 or Log Pow <3). n Octanol / water partition coefficient as log Pow: 0.63 Bioconcentration factor (BCF): <5.8 Cyprinus carpio (carp) estimate 4.5-Dichloro-2-n-octvl-4-isothiazolin-3-one Bioaccumulation Potential: Low bioaccumulation potential (BCF <100 or Log Pow <3). n Octanol / water partition coefficient (log Pow): 2.8 Estimated Bioconcentration factor (BCF): <13 fish Soil mobility Silicon dioxide No data available.

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Silicone Sealant 5161 Polydimethylsiloxane hydroxy-terminated High mobility in soil (50 <Koc <100) Water partition coefficient (Koc): 130 estimated 4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one Expected to be relatively stationary in the ground (Koc> 5000). Water partition coefficient (Koc): 5662-7865 Estimated PBT and vPvB evaluation results Silicon dioxide This substance has not been evaluated for PBT. Polydimethylsiloxane hydroxy-terminated This substance has not been evaluated for PBT. 4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one This material is not considered to be PBT (Residual, Bioaccumulative, Toxic). This material is vPvB (high Persistence, high bioaccumulative potential Not considered a substance. Other adverse effects Silicon dioxide This material is not on the Montreal Protocol List and is not an ozone depleting substance. Polydimethylsiloxane hydroxy-terminated This material is not on the Montreal Protocol List and is not an ozone depleting substance. 4,5-Dichloro-2-n-octyl-4-isothiazolin-3-one

This material is not on the Montreal Protocol List and is not an ozone depleting substance.

SECTION 12 NOTES: NONE

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal method: Do not dispose of in sewers, grounds or puddles. All waste contaminants are Dispose of in accordance with local regulations. Applicable laws may vary by region. Classification according to the nature of the waste and compliance with applicable legislation is the sole responsibility of the waste producer. As your product supplier, we are not involved in the handling, use or control of this material in the production process. The information provided here is stated in the ingredients and contents of the MSDS and is intended for

Applies only to products shipped on condition. The preferred method for unused and unpolluted products is to send them to a licensed or licensed company: a recycler. Reclaimer. Decomposition apparatus using incinerators or other heat. For additional information, see Handling and Storage Information, MSDS Section 7 Stability and Reactivity Information, MSDS Section 10 Regulatory Notices, MSDS Section 15

DISPOSAL CONSIDERATIONS: Empty containers must be recycled or disposed of at an approved waste management facility. Classification according to the nature of the waste and compliance with applicable legislation is the sole responsibility of the waste producer. The container must not be reused for any purpose.

Contaminated packaging: Dispose of all contaminated material in accordance with applicable governmental and local regulations.

SECTION 13 NOTES: NONE

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SECTION 14: TRANSPORT INFORMATION

Sea transport (IMDG):

UN No: Not subject to IMDG code. Class: Not subject to IMDG code. Packing Group: Not subject to IMDG code. Proper Shipping Name: Not subject to IMDG code. Technical Name: Not subject to IMDG code. Marine Pollutant(Yes/No): Not subject to IMDG code. Hazard Label(s): Not subject to IMDG code.

Transportation Precautions:

Transport in accordance with the relevant regulations. Refer to section 7.2 for further information on transportation requirements. Refer to section 6 for the safety measures to be taken in the event of accidental release.

Other International Transportation Regulations MARPOL 73/78 Annex I Or II and IBC or IGC Cargo according to the code Transport Consult IMO regulations before transporting ocean bulk Air Transport (IATA-DGR): UN No: Not subject to IATA code. UN proper shipping name: Not regulated for transport Class: Not subject to IATA code. Packing Group: Not subject to IATA code. Proper Shipping Name: Not subject to IATA code. Technical Name: Not subject to IATA code. Hazard Label(s): Not subject to IATA code.

SECTION 14 NOTES: NONE

This information is not intended to convey any special regulations or handling requirements / information related to this product. Shipping classifications may also vary by container volume and may be affected by the region or country where applicable laws apply. Additional transportation system information can be obtained through your authorized sales or customer service department. It is the responsibility of the shipping department to comply with all applicable laws, rules and regulations regarding the material transport system.

SECTION 15: REGULATORY INFORMATION

Regulation under the Industrial Safety and Health Act

According to Article 41 of the Industrial Safety and Health Act, it is a chemical substance to be applied for data preparation and provision.

Prohibited hazardous substances such as manufacturing Not applicable

Permitted hazardous substances Not applicable

Hazardous Factors Subject to Exposure Criteria

Ingredient CAS No.

Silicon dioxide 7631-86-9

Harmful factors subject to acceptance criteria Not applicable Hazardous Substances under Control Not applicable

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Specially controlled substances Not applicable Hazardous Factors for Work Environment Measurement Not applicable Hazardous Factors for Special Medical Examination Not applicable Inaredient CAS No. Silicon dioxide 7631-86-9 Toxic substances regulated by the Chemicals Control Act Not applicable **Restricted substances** Not applicable Prohibited substances Not applicable Accident prepared materials Not applicable Dangerous Goods Safety Control Act Not applicable Waste of Workplace Regulated by Waste Management Act Disposal should be done in accordance with Article 13 of the Waste Management Act. Other national and foreign laws regulated in Korea. **Existing Chemical Inventory (KECI):** All ingredients are listed, excluded or verified by the supplier

SECTION 15 NOTES: NONE

SECTION 16: OTHER INFORMATION

Other None Risk rating scheme NFPA Health Flammability Instability 0 1 0 Legend Dow IHG Dow IHG KR OEL Hazardous Factors subject to Exposure Criteria STEL Short-term Exposure Criteria TWA time weighted average

Full text of other abbreviations

AICS-Australian Chemical Inventory; ANTT-Brazilian Inland Transportation Agency; ASTM-United States

Material Testing Association; bw-body weight; CMR-carcinogen, mutagen or regenerative toxin; DIN-German Standards Association Standards; DSL-National Listing (Canada); ECx-concentrations associated with x response; ELx-x reaction related loading rate; EmS-Emergency Plan; ENCS-Existing and New Chemicals (Japan); ErCx-x growth rate response related concentrations; ERG-Emergency Response Guide; GHS-Global Unification System; GLP-Good Laboratory Practices; IARC-International Cancer Institute; IATA

-International Air Transport Association; IBC-code for the construction and equipment of chemically dangerous goods transport vessels; IC50-half maximal inhibitory concentration; ICAO-International Civil Aviation Organization; IECSC-China Existing Chemical Inventory; IMDG-International Maritime Dangerous Goods Regulations; IMO-International Maritime Organization; ISHL-Industrial Safety and Health Act (Japan); ISO-International Organization for Standardization; KECI-Korea Existing Chemicals; LC50-lethal concentration of test population 50 ; LD50-lethal dose of test population 50 (half lethal dose); MARPOL-International Marine Pollution Prevention Convention; n.o.s. -Not otherwise specified; Nch-Chilean regulations; NO (A) EC-no effect observation concentration; NO (A) EL-no

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effect observation; NOELR-no effect load rate; NOM-Official Rules of Mexico; NTP-Toxic Substances Management Program; NZIoC-New Zealand

Chemical inventory; OECD-Organization for Economic Cooperation and Development; OPPTS-Bureau of Chemical Safety and Pollution Prevention; PBT-persistent, bioaccumulative, toxic substances; PICCS-Philippine Chemical Inventory; (Q) SAR-(quantitative) structural activity correlation; REACH-Regulations (EC) No 1907/2006 of the European Parliament and the European Union on the registration, evaluation, approval and limitation of chemicals; SADT-self-accelerating decomposition temperature; SDS-Safety Data Sheets; TCSI-Taiwan Chemical List; TDG-transport of dangerous goods; TSCA-Toxic Substances Control Act (US); UN-United Nations; UNRTDG-United Nations Recommendations on the Transport of Dangerous Goods; vPvB-high residual, high bioaccumulative potential; WHMIS-Hazardous Substance Information System

Source of data

This Material Safety Data Sheet (MSDS) is an MSDS prepared based on internal data of the head office. It has been translated and edited by the Environmental Safety and Health Team in accordance with Article 41.

This information is offered in good faith as typical values and not as a product specification. No warranty, expressed or implied, is here made. The recommended industrial hygiene and handing procedures are believed to be generally applicable. However, each should review these recommendations is the specific context of the intended use and determine whether they are appropriate.