TOSSEAL381-W

SAFETY DATA SHEET

1 Product and company identification

Name of chemical (Product name)	:	TOSSEAL381-W
Manufacturer/Importer/Distributor Information	:	Momentive Performance Materials Japan LLC Akasaka Park Building 5-2-20 Akasaka, Minato-ku Tokyo Japan
Contact person	:	commercial.services@momentive.com
Telephone	:	+81-3-5544-3100
Telefax	:	+81-3-5544-3101
Emergency telephone number	:	+81-3-5544-3111 +81-276-31-4118 (night / weekend)
Responsible Department	:	Product Stewardship & Compliance Group

2 Hazard(s) identification

GHS classification:

Health Hazards:

Skin sensitizer — Category 1

GHS label elements:

Pictograms:

Signal Word: Warning

Hazard Statement: May cause an allergic skin reaction.

Precautionary Statements:

Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/eye protection/face protection.

Response: IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see on this label). Take off contaminated clothing and wash it before reuse.

Storage: Not applicable

Disposal: Dispose of contents/container to an appropriate treatment and disposal

facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in classification:
none

3 Composition/information on ingredients

Chemical nature: Silicone sealant

Mixtures

Chemical Identity	CAS number	Concentration*
Methyl oxime silane	Trade secret	1.0 - 10%
butanone oxime vinylsilane	2224-33-1	0.1 - 1.0%
TITANIUM DIOXIDE	13463-67-7	0.1 - 1.0%
Aminofunctional Silane	Trade secret	0.1 - 1.0%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Trade secret information: ** A specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4 First-aid measures

Inhalation: If inhaled, move victim to fresh air and seek medical attention.

Skin Contact: Wash the skin immediately with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Ingestion: Do not induce vomiting. Get medical attention immediately.

Most important symptoms/effects, acute and delayed

Symptoms: None known.

Hazards: No data available.

5 Fire-fighting measures

Extinguishing media: Extinguish with foam, carbon dioxide or dry powder.

Unsuitable extinguishing media: Avoid water in straight hose stream; will scatter and spread fire.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures: Keep unprotected persons away. Remove sources of ignition. Use personal protective equipment. Keep upwind.

Environmental Precautions: Do not allow runoff to sewer, waterway or ground.

Methods or materials for containment and cleaning up: Put in an empty container for recovery after preventing spill by sand or sandbags,if the amount of spill is large. Put in an empty container for recovery after wiping or soaking up in an inert material,if the amount of spill is small.

Prevention of secondary hazards: Remove sources of ignition.

7 Handling and storage

Handling

Technical measures (e.g. Local and general ventilation): Provide adequate general and local exhaust ventilation. Eyewash bottle with clean water.

Safe handling advice: "Wear eye, hand and respiratory protection when in handling." Keep away from sources of ignition - No smoking. Protect from moisture. Seal opened containers and use up as soon as possible. This product release Methyl Ethyl Ketoxime during curing. Use only in well-ventilated areas. Avoid inhalation of vapors and spray mists.

Contact avoidance measures: Wear suitable gloves and eye/face protection.

Hygiene measures: Avoid contact with eyes, skin, and clothing. Wash hands after handling. When using do not eat, drink or smoke.

Storage

Safe storage conditions: Store in a dark, cool place indoors, with container tightly closed.

Safe packaging materials: No data available.

8 Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits:

Chemical name	Type	Exposure Limit Values	Regulation Sources
TITANIUM DIOXIDE - Respirable dust.	TWA	1 mg/m3	Japan. OELs - JSOH (Recommendation of Occupational Exposure Limits), as amended (05 2014)
TITANIUM DIOXIDE - Total dust.	TWA	4 mg/m3	Japan. OELs - JSOH (Recommendation of Occupational Exposure Limits), as amended (05 2014)
TITANIUM DIOXIDE	TWA	0.3 mg/m3	Japan. OELs - JSOH (Recommendation of Occupational Exposure Limits), as amended (05 2014)

Personal protective equipment (ppe)

Respiratory Protection:	Gas mask for organic gas if MEKO exposure limits are exceeded (3 ppm 8-hr TWA, recommended workplace exposure guideline.
Hand Protection:	Chemical resistant gloves
Eye Protection:	Safety glasses with side shields
Skin and Body Protection:	Chemical resistant clothing Safety shoes

9 Physical and chemical properties

Physical state:	solid
Form:	Paste
Color:	White
Odor:	Faint
Odor threshold	No data available.
Melting point/freezing point	Not applied
Initial boiling point and boiling range	Not applied
Flammability	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Flash Point	81 °C
Evaporation rate	No data available.
Auto-ignition temperature	450 °C
Decomposition temperature	No data available.
SADT	No data available.
pH	No data available.
Viscosity, dynamic:	No data available.
Viscosity, kinematic:	No data available.
Solubility(ies)	
Solubility in water:	Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water)Log Pow	No data available.
Vapor pressure	Not applied
Density	1.03 g/cm3 (23 °C)
Relative density	No data available.
Vapor density	No data available.

10 Stability and reactivity

Reactivity:	No dangerous reaction if used as recommended.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Hazardous polymerization does not occur.

Conditions to avoid:	Keep away from heat, sparks and open flame.
Incompatible Materials:	Moisture. The catalysis of strong acids or bases cause polymerization or decomposition.
Hazardous Decomposition Products:	Reacts with water/moisture liberating Methylethylketoxime (MEKO) = 2-Butanone-oxime. Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation.

11 Toxicological information

Acute toxicity (list all possible routes of exposure)

Oral

Product:	Not classified for acute toxicity based on available data.
Components:	
Methyl oxime silane	No data available.
butanone oxime vinylsilane	No data available.
TITANIUM DIOXIDE	LD 50 (Rat): > 10,000 mg/kg
Aminofunctional Silane	LD 50 (Rat): 2,995 mg/kg

Dermal

Product:	Not classified for acute toxicity based on available data.
Components:	
Methyl oxime silane	No data available.
butanone oxime vinylsilane	No data available.
TITANIUM DIOXIDE	LD 50 (Rabbit): > 10,000 mg/kg
Aminofunctional Silane	LD 50 (Rabbit): > 2,000 mg/kg

Inhalation

Product:	Not classified for acute toxicity based on available data.

Repeated dose toxicity

Product:	No data available.
Components:	

Aminofunctional Silane	NOAEL (Rat, Oral, 28 d): >= 500 mg/kg

Skin Corrosion/Irritation

Product:	No data available.
Components:	
Methyl oxime silane	Corrosive
butanone oxime vinylsilane	Corrosive
TITANIUM DIOXIDE	No data available.
Aminofunctional Silane	OECD Test Guideline 404 (Rabbit): No skin irritation

Serious Eye Damage/Eye Irritation

Product:	No data available.
Components:	
Methyl oxime silane	Irritating to eyes. Category 2
butanone oxime vinylsilane	Risk of serious damage to eyes. Category 1
TITANIUM DIOXIDE	No eye irritation
Aminofunctional Silane	OECD Test Guideline 405 (Rabbit): Strongly irritating.

Respiratory sensitization

Product:	No data available.
Components:	
Methyl oxime silane	No data available.
butanone oxime vinylsilane	No data available.
TITANIUM DIOXIDE	No data available.
Aminofunctional Silane	No data available.

Skin sensitization

Product:	No data available.
Components:	
Methyl oxime silane	Category 1B
butanone oxime vinylsilane	Category 1B
TITANIUM DIOXIDE	No data available.
Aminofunctional Silane	No data available.

Carcinogenicity

Product: No data available.

Components:

Methyl oxime silane	No data available.
butanone oxime vinylsilane	No data available.
TITANIUM DIOXIDE	No data available.
Aminofunctional Silane	No data available.

Japan Society for Occupational Health: Carcinogen:

No carcinogenic components identified

Japan. ISHL Designated Carcinogen:

No carcinogenic components identified

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

Components:

Methyl oxime silane	No data available.
butanone oxime vinylsilane	No data available.
TITANIUM DIOXIDE	No data available.
Aminofunctional Silane	No data available.

In vivo

Product: No data available.

Components:

Methyl oxime silane	No data available.
butanone oxime vinylsilane	No data available.
TITANIUM DIOXIDE	No data available.
Aminofunctional Silane	No data available.

Reproductive toxicity

Product: No data available.

Components:

Methyl oxime silane	No data available.

butanone oxime vinylsilane	No data available.
TITANIUM DIOXIDE	No data available.
Aminofunctional Silane	No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Components:

Methyl oxime silane	No data available.
butanone oxime vinylsilane	No data available.
TITANIUM DIOXIDE	No data available.
Aminofunctional Silane	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Components:

Methyl oxime silane	Category 2: Cardiovascular system
butanone oxime vinylsilane	Category 2: blood system
TITANIUM DIOXIDE	No data available.
Aminofunctional Silane	No data available.

Aspiration Hazard

Product: No data available.

Components:

Methyl oxime silane	No data available.
butanone oxime vinylsilane	No data available.
TITANIUM DIOXIDE	No data available.
Aminofunctional Silane	No data available.

Other effects: Toxicity of methyl ethyl ketoxime (MEKO) liberated when the material is in touch with water or moisture in the air, or the material is curing. SKIN CONTACT: May cause mild skin irritation. EYE CONTACT: Causes severe eye irritation may damage tissue. ACUTE ORAL TOXICITY: LD50 = 4ml/kg (rat). ACUTE INHALATION: 4-hr LC50 = > 4.8mg/l (rat). INHALATION TOXICITY: Narcotic(central nervous system)effects in high concentrations.Effects were reversible when exposure was ended.Prolonged overexposure causes adverse effects on the blood. SKIN SENSITIVITY: Positive (guinea pig).No allergic reaction to humans.CARCINOGENICITY: A lifetime (about two years) inhalation study in male and female mice and rats revealed that liver tumors were observed in male mice and rats at a high exposure level of 375 ppm. OTHER LONG-TERM EXPOSURE TESTS: Atrophy of nasal epithelium cells was observed in both mice and rats at all concentrations.The effect appeared reversible at lower concentrations. PERMISSIBLE CONCENTRATION: TWA 3 ppm (supplier's recommended value), Keep well ventilated (STEL 10 ppm or less). The WEEL recommended value of AIHA is TWA 10 ppm.

12 Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment

Fish

Product: No data available.

Components:

TITANIUM DIOXIDE	LC0 (Leuciscus idus, 48 h): > 1,000 mg/l
Aminofunctional Silane	LC50 (Lepomis macrochirus): > 100 mg/l

Aquatic Invertebrates

Product: No data available.

Components:

Aminofunctional Silane	EC50 (Daphnia magna, 48 h): 87.4 mg/l

Toxicity to Aquatic Plants

Product: No data available.

Components:

Methyl oxime silane	No data available.

butanone oxime vinylsilane	No data available.
TITANIUM DIOXIDE	No data available.
Aminofunctional Silane	No data available.

Toxicity to microorganisms

Product: No data available.

Components

Methyl oxime silane	No data available.
butanone oxime vinylsilane	No data available.
TITANIUM DIOXIDE	EC0 (Pseudomonas putida, 24 h): > 10,000 mg/l
Aminofunctional Silane	No data available.

Chronic hazards to the aquatic environment

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Components:

Methyl oxime silane	No data available.
butanone oxime vinylsilane	No data available.
TITANIUM DIOXIDE	No data available.
Aminofunctional Silane	No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

Components:

TITANIUM DIOXIDE	0 %

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in soil: No data available.

Hazardous to the ozone layer: Not Regulated

Further Information: No data available.

13 Disposal considerations

General information: Do not discharge into drains, water courses or onto the ground.

Disposal methods: No data available.
Contaminated Packaging: Dispose of as unused product.

14 Transport information

International regulations

IMDG - International Maritime Dangerous Goods Code

Not regulated.

IATA

Not regulated.

National Regulations
Domestic Standard: In compliance with domestic law.

15 Regulatory information

Japan CSCL:

Priority Assessment Chemical Substances: Not Regulated

Monitoring Chemical Substances: Not Regulated

Law concerning Pollutant Release and Transfer Register:

Specified Class 1 substance(s): Not Regulated

Class 1 Substance(s): Not Regulated
Class 2 Substance(s): Not Regulated

Industrial Safety and Health Act:

Article 57-2 Regulated Substance(s): TITANIUM DIOXIDE;

Article 57 Regulated Substance(s) subject to labeling: Not Regulated

Organic Solvent Regulation Not Regulated

Specified Substances Regulation:

Class 1 designated chemical substances:
Not Regulated
Class 2 designated chemical substances:
Not Regulated
Class 3 designated chemical substances:
Not Regulated

Poisonous and Deleterious Substances Control Act:

Specified poisonous substance(s):

Main law: Not Regulated

Cabinet order: Not Regulated

Poisonous Substance(s):

Main law: Not Regulated

Cabinet order: Not Regulated

Deleterious Substance(s):

Main law: Not Regulated

Cabinet order: Not Regulated

Fire Service Law: Designated Combustible material (Combustible Solid)
Keep away from fire

High Pressure Gas Safety Law: Not Regulated

Act on Prevention of Marine Pollution and Maritime Disaster: Not Regulated

Inventory Status:

Australia AICS:	y (positive listing)	Remarks: None.
Canada DSL Inventory List:	n (negative listing)	Remarks: None.
EU EINECS List:	y (positive listing)	Remarks: None.
Japan (ENCS) List:	y (positive listing)	Remarks: None.
China Inventory of Existing Chemical Substances:	y (positive listing)	Remarks: None.
Korea Existing Chemicals Inv. (KECI):	y (positive listing)	Remarks: None.
Canada NDSL Inventory:	n (negative listing)	Remarks: None.
Philippines PICCS:	y (positive listing)	Remarks: None.
US TSCA Inventory:	q (quantity restricted)	Remarks: None.
New Zealand Inventory of Chemicals:	y (positive listing)	Remarks: None.
Taiwan. Taiwan inventory (CSNN):	y (positive listing)	Remarks: None.

16 Other Information

Revision Information: ARGHS_JP
Issue Date: 10/05/2021
SDS No.:
Disclaimer:

Notice to reader

This material is developed and manufactured for industrial applications only. For medical or other special applications, use after performing safety testing on the product and confirming safety. Never use for human applications such as implant, impregnation, or where a residue may possibly remain in the body.

Further Information

The information provided in this Safety Data Sheet is correct to the best ofour knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safehandling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Literature Reference: No data available.