

**MATERIAL SAFETY DATA SHEET – 73-20 RTV Adhesive/Sealant**

Speedline® Corp.
6810 Cochran Road
Solon, Ohio 44139

Date Prepared: 10/07/08
Emergency Phone: Chem-Tel 800/255-3924
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Section 1 – Product Identification

Name:	73-20 RTV Adhesive/Sealant
Generic Description:	Silicone Elastomer
Physical Form:	Physical Form
Color:	White, aluminum, clear
Odor:	Acetic acid order
NFPA Profile:	Health 1, Flammability 1, Reactivity 0

Section 2 – OSHA Hazardous Ingredients

<u>Components</u>	<u>Wght./%</u>	<u>Exposure Limits</u>
Methyltriacetoxysilane	2	* See comments.
Silica, amorphous	11	OSHA PEL: TWA 15 mg/m ³ respirable fraction. ACGIH TLV; TW A 10 mg/m ³ total dust.
Ethyltriacetoxysilane	2	* See comments.

*Comments: Acetic acid is formed upon contact with water or humid air. Provide adequate ventilation to control exposure within guidelines of OSHA PEL: TWA 10 ppm and ACGIH TLV: TWA 10 ppm, STEL 15 ppm.

Section 3 – Effects of Exposure**Acute effects:**

Eye:	Direct contact irritates moderately with redness and swelling.
Skin:	A single short exposure (less than 24 hours) may irritate. Repeated, prolonged contact (24 to 48 hours) may irritate moderately.
Inhalation:	Vapor overexposure may irritate eyes, nose and throat.
Oral:	Small amounts transferred to the mouth by fingers during use, etc. should not injure. Swallowing large amounts may cause digestive discomfort.

Repeated Exposure Effects

Skin:	None Known.
Inhalation:	None Known.
Oral:	None Known.

Special Hazards

Carcinogens:	None Known.
Teratogens:	None Known.
Mutagens:	None Known.
Reproductive Toxins:	None Known
Sensitizers:	None Known

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar composition component data and/or expert review of the product.



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Section 4 – First Aid Measures

Eye: Immediately flush with water for 15 minutes; get medical attention.
Skin: Remove from skin and wash thoroughly with soap and water or waterless soap. Get medical attention if irritation or other ill effects develop or persist.
Inhalation: Move to an area with fresh air.
Oral: No first aid should be needed.

Section 5 – Fire Fighting Measures

Flash Point (Closed Cup): 178.00° F (81.11° C)
Autoignition Temperature: Not determined.
Flammability Limits in Air: Not determined.
Extinguishing Media: Carbon dioxide (CO₂), water, water fog (or spray), dry chemical or foam.
Unsuitable Extinguishing: None
Fire Fighting Procedures: Self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals. If large amount of this material is involved, the area should be evacuated.
Unusual Fire Hazards: None.
Hazardous Decomposition: Thermal breakdown of this product during fires, or due to very high heat conditions, may evolve the following hazardous decomposition products:

Silicon dioxide, carbon oxides and traces of incompletely burned carbon compounds and formaldehyde.

Section 6 – Accidental Release Measures

Containment/Cleanup: Disposal of collected product, residues and cleanup materials may be governmentally regulated. Observe all applicable local, state and federal waste management regulations. Scrape up and contain for salvage or disposal. Observe all personal protection equipment recommendations described in Section 5 and 8. Local, state and federal reporting requirements may apply to spills or releases of this material into the environment. See applicable regulatory compliance information in Section 15.

Section 7 – Handling and Storage

Handling: No special precautions.
Storage: Keep container closed and stored away from water or moisture.

Section 8 – Exposure Controls/Personal Protection

Engineering Controls

Local exhaust: Recommended.



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General Ventilation: Recommended.

Personal Protective Equipment for Routine Handling

Eyes: Use proper protection – safety glasses as a minimum.

Skin: Washing at mealtime and end of exposure.

Suitable gloves: No special protection needed.

Inhalation: Use respiratory protection unless adequate local exhaust ventilation is provided or air sampling data shows exposure to be within the recommended exposure guidelines. Industrial Hygiene Personnel can assist in judging the adequacy of existing engineering controls.

Suitable Respirator: Organic vapor type.

Personal Protection Equipment for Spills

Eye: Use proper protection – safety glasses as a minimum.

Skin: Washing at mealtimes and at the end of exposure.

Inhalation/Suitable Respirator: Use respiratory protection unless adequate local exhaust ventilation is provided or air sampling data shows exposure to be within recommended exposure guidelines. Industrial Hygiene Personnel can assist in judging the adequacy of existing engineering controls.

Precautionary Measures: Avoid eye contact. Avoid breathing vapor. Keep container closed. Use reasonable care.

Comments: Product evolves acetic acid (HOAc) when exposed to water or humid air. Provide ventilation during use to control HOAc within exposure guideline (see Section 2) or use respirator protection.

Note: These precautions are for room temperature handling; use at elevated temperatures may require added protection.

Section 9 – Physical and Chemical Properties

Physical form:	Paste.
Color:	White, aluminum or clear.
Odor:	Acetic acid odor.
Specific Gravity @ 25° C:	1.04
Viscosity:	Not applicable.
Freeze/melt point:	Not determined.
Boiling point:	Not applicable.
Vapor pressure:	Not applicable.
Vapor density:	Not applicable.
Solubility in water:	None.
ph:	Not applicable.
Volatile content:	32 gr / ltr

Section 10 – Stability and Reactivity

Chemical stability: Stable.

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Hazardous Polymerization: Hazardous polymerization will not occur.
Conditions to avoid: None.
Materials to avoid: Oxidizing material can cause a reaction. Water, moisture or humid air – hazardous vapors form as described in Section 2.

Section 11 – Toxicological Information

Toxicological Information: No Known Applicable Information

Section 12 – Ecological Information

Environmental Fate & Distribution: Complete information not available.
Environmental Effects: Complete information is not yet available.
Fate & Effects in Waste Water
Treatment Plants: Complete information is not yet available.

Ecotoxicity Classification Criteria

Hazard Parameters (LC50 or EC50)	High	Medium	Low
Acute Aquatic Toxicity (mg/L)	<=1	<1 and <=100	>100
Acute Terrestrial Toxicity	<=100	>100 and <=2000	>2000

This table is adapted from “Environmental Toxicology and Risk Assessment”. ASTM STP 1179, p. 34, 1993
This table can be used to classify the ecotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.

Section 13 – Disposal Considerations

RCRA HAZARD CLASS (40 CFR 261)

SECTION 13 NOTES:

When a decision is made to discard this material, as received, is it classified as a hazardous waste? NO

Check State and Local laws for additional regulatory requirements regarding disposal.

Section 14 – Transport Information

DOT Road Shipment Information (49 CFR 172.101): Not subject to DOT.
Ocean Shipment (IMDG): Not subject to IMDG code.
Air Shipment (IATA): Not subject to IATA regulations.

Section 15 – Regulatory Information



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Contents of this MSDS comply with the OSHA Hazard Communications Standard 29CFR 1910, 1200 TSCA Status. All chemical substances found in this product comply with the toxic Substances Control Act inventory reporting requirements.

EPA SARA Title III Chemical Listings

Section 302 Extremely Hazardous Substances:	None.
Section 304 CERCLA Hazardous Substances:	None.
Section 312 Hazard Class:	
Acute:	Yes.
Chronic:	No.
Fire:	No.
Pressure:	No.
Reactive:	No.
Section 313 Toxic Chemicals:	None present or none present in regulated quantities.

Supplemental State Compliance Information

California

This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer: None known.

This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause birth defects or other reproductive harm: None known.

Weight %

Component

Massachusetts

11%	Silica, amorphous
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New Jersey

81%	Dimethyl siloxane, hydroxyl-terminated
2%	Methyltriacetoxysilane
2%	Ethyltriacetoxysilane
1%	Polydimethylsiloxane
11%	Silica, amorphous fumed; #1655

Pennsylvania

81%	Dimethyl siloxane, hydroxyl – terminated
11%	Silica, amorphous

Section 16 – Disclaimer

The information presented in this MSDS represents the most accurate known presentation of this product. However, due to the many and diverse variables in its end use, it is the end users' responsibility to determine the suitability of this information for the adoption of the safety precautions as may be necessary.

SAFETY DATA SHEET**TSE382-B**Version 0.0
Revision Date 00/00/0000Print Date 10/12/2011
000000012969**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

Trade name : TSE382-B

Product code : 000000012969

Company Name : Momentive Performance Materials Japan LLC

Street address : 133,Nishi-shinmachi,Ohta-shi,Gunma,Japan

Responsible Department : Product Stewardship & Compliance Group

Prepared by : Product Stewardship & Compliance

Telephone : 81-276-31-1468

Telefax : 81-276-31-3061

Emergency contact : Product Stewardship & Compliance Group

: Telephone 81-276-31-1468

: night / 81-276-31-4118

: weekend

: Telefax 81-276-31-3061

2. HAZARDS IDENTIFICATION**GHS Classification:**

Explosives; Classification not possible

Flammable gas; Not applicable

Flammable aerosol; Not applicable

Oxidizing gases; Not applicable

Gases under pressure; Not applicable

Flammable liquids; Not applicable

Flammable solid; Classification not possible

Self-reactive substances and mixtures; Classification not possible

Pyrophoric liquids; Not applicable

Pyrophoric solids; Classification not possible

Self-heating substances and mixtures; Classification not possible

Substances and mixtures, which in contact with water, emit flammable gases; Classification not possible

Oxidizing liquids; Not applicable

Oxidizing solids; Classification not possible

Organic peroxides; Classification not possible

Corrosive to metals; Classification not possible

Acute toxicity; Not classified; Oral

Acute toxicity; Category 5; Dermal

Acute toxicity; Not applicable; Inhalation - gas

Acute toxicity; Classification not possible; Inhalation - vapour

Acute toxicity; Classification not possible; Inhalation - dust and mist

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Skin corrosion/irritation; Category 3
Serious eye damage/eye irritation; Not classified
Respiratory sensitizer; Classification not possible
Skin sensitizer; Category 1
Germ cell mutagenicity; Classification not possible
Carcinogenicity; Not classified
Toxic to reproduction; Classification not possible
Specific target organ toxicity - single exposure; Classification not possible
Specific target organ toxicity - repeated exposure; Not classified
Aspiration hazard; Classification not possible
Acute hazards to the aquatic environment; Classification not possible
Hazardous to the aquatic environment — Chronic Hazard; Classification not possible

GHS-Labeling:

Signal word : warning

Hazard statements : May be harmful in contact with skin. May cause an allergic skin reaction.

Precautionary statements:

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

Precautionary Statement - Response : IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.

Precautionary Statement - Disposal : Dispose of contents/container to an approved incineration

3. COMPOSITION/INFORMATION ON INGREDIENTS**Pure substance/mixture**

Mixture

Chemical nature

Silicone compound

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000000012969**Hazardous components**

Chemical Name	CAS-No.	ENCS No.	KECI No.	Concentration %
Oxime silanes	Trade secret	Trade secret	Trade secret	1.0 - 10.0
Silica	Trade secret	(1)-548	Trade secret	1.0 - 10.0
Carbon Black	1333-86-4	(5)-3328	KE-04682	0.1 - 1.0

Industrial Safety and Health Law

Chemical Name	Cabinet Order Number:
Silica	312
Carbon Black	130

4. FIRST AID MEASURES

- Inhalation : Move to fresh air. Get medical attention.
- Skin contact : Wash with plenty of soap and water. Get medical attention if symptoms occur.
- Eye contact : Rinse immediately with plenty of water and seek medical advice.
- Ingestion : Do not induce vomiting. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Extinguish with foam, carbon dioxide or dry powder.
- Special fire fighting procedures : Remove sources of combustibles. Extinguish the fire using fire-fighting media listed above. Cool surrounding tanks, buildings and so on by spraying with water to prevent the fire extension. The fire fighting should be done from the windward side, with suitable respiratory protective device, if necessary.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and : Use personal protective equipment. Keep people away from the area. Keep upwind.

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emergency procedures

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

Methods for 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**

Advice on safe handling : "Wear eye, hand and respiratory protection when in handling." Keep away from sources of ignition - No smoking. Keep away from moisture as part of this product contains is moisture sensitive. 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.

Advice on protection against fire and explosion : Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or grounding procedures.

Storage

Requirements for storage areas and containers : Store in a dark, cool place indoors, with container tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Engineering measures**Provide adequate general and local exhaust ventilation.
Eyewash bottle with clean water.**Personal protective equipment**

Respiratory protection : Gas mask for organic gas if MEKO exposure limits are exceeded (3 ppm 8-hr TWA, recommended workplace exposure guideline).

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Hand protection : Advice: Rubber or plastics gloves

Eye protection : Safety glasses with side shields

Skin and body protection : Wear rubber boots.
Chemical resistant clothing

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form : Paste

Colour : Black

Odour : Faint

Safety data

pH : No data available.

Melting Point : Melting point (°C)
Not applied

Boiling point/boiling range : Not applied

Flash point : 136 °C

Autoignition temperature : 450 °C

Lower explosion limit : No data available.

Upper explosion limit : No data available.
Not applied

Vapour pressure : Not applied

Density : 1.04 g/cm³ at 25 °C

Water solubility : Insoluble

Solubility in other solvents : No data available.

Relative vapour density : No data available.

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000000012969**10. STABILITY AND REACTIVITY**

Conditions to avoid	: Keep away from heat, sparks and open flame.
Materials to avoid	: Moisture. The catalysis of strong acids or bases cause polymerization or decomposition.
Further Information	: Combustible Flammability
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 oral toxicity	: No data available.
Acute inhalation toxicity	: No data available.
Acute dermal toxicity	: No data available.
Skin irritation.	: No data available.
Eye irritation	: No data available.
Sensitization	: No data available.
Mutagenicity	: No data available.

Further information

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.



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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

Ecotoxicological data for this product is not available.

13. DISPOSAL CONSIDERATIONS

Product : This product falls under Industrial Waste based on Wastes Disposal and Public Cleansing Law. Dispose of in accordance with this law and local regulations.

14. TRANSPORT INFORMATION

Japan Dangerous Goods Regulatory Information:

JFSL Designated Flammable Substances (Combustible solids) for 3tons or more, No fire

Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

Inventories

Australia Inventory of Chemical Substances (AICS)	y (positive listing)
Japan Inventory of Existing & New Chemical Substances (ENCS)	y (positive listing)
China Inventory of Existing Chemical Substances	y (positive listing)
Korea Existing Chemicals Inventory (KECI)	y (positive listing)
Canada DSL Inventory	y (positive listing)
Canada NDSL Inventory	n (Negative listing)

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000000012969Philippines Inventory of
Chemicals and Chemical
Substances (PICCS)
TSCA list

y (positive listing)

q (quantity restricted)

Listed on TSCA

For inventories that are marked as quantity restricted or special cases, please contact Momentive.

National legislation

: JFSL Designated Flammable Substances (Combustible solids)
for 3tons or more.

PRTR and Promotion of Chemical Management Law, new regulated substances (Cabinet Order No. 356, 2008):

Specified Class 1 substance(s): :

Class 1 Substance(s): :

Class 2 Substance(s): :

Industrial Safety and Health Law:

Article 57-2 Regulated Substance(s): Silica, Carbon black

Article 57 Regulated Substance(s) subject to labeling: None Reported

Poisonous and Deleterious Substances Control Law:

Specified poisonous substance(s):

Main law: : Not Applicable

Cabinet order: : Not Applicable

Poisonous Substance(s):

Main law: : Not Applicable

Cabinet order: : Not Applicable

Deleterious Substance(s):

Main law: : Not Applicable

Cabinet order: : Not Applicable

High Pressure Gas Safety Law

High Pressure Gases, Article 2: Not Applicable

Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances: Not Applicable



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16. OTHER INFORMATION

- | | | |
|----------------------|---|---|
| Literature Reference | : | ACGIH TLV for Chemical Substances
Chemical safe administration data book (The Chemical Daily Co., Ltd.) |
| Precautions | : | 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. |
| Other precautions | : | Other (an address, and telephone and fax numbers for information, references) The information herein is made based on references, information and data available at present. It may be revised when new information is available. The descriptions herein are for normal handling. For special applications, make safety provisions suitable to them prior to use.
The physical properties and other values indicated on this document are average values expected for the product and are not guaranteed. |

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, 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.