

TSE387-B

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** TSE387-B

**Other means of identification**

**Synonyms:** Silicone Rubber Compound

**Recommended use and restriction on use**

**Recommended use:** Silicone Elastomer

**Restrictions on use:** Not known.

**Manufacturer** : Momentive Performance Materials - Japan LLC  
133 Nishishin-machi, Ohta-shi  
Ohta-shi 10 3738505

**Distributor Information** : DC Products Pty Limited  
Unit 117/45 Gilby Road  
Mount Waverley 3149  
Australia

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**Emergency telephone number** : 61 418 529118

## 2. Hazard(s) identification

**Hazard Classification**

**Health Hazards**

Serious Eye Damage/Eye Irritation	Category 2A
Skin sensitizer	Category 1
Carcinogenicity	Category 2
Specific Target Organ Toxicity - Repeated Exposure	Category 2 <sup>1</sup>

**Target Organs**

1. Cardiovascular system, blood system

**Label Elements**

**Hazard Symbol:**

**TSE387-B**



**Signal Word:** Warning

**Hazard Statement:** Causes serious eye irritation.  
May cause an allergic skin reaction.  
Suspected of causing cancer.  
May cause damage to organs through prolonged or repeated exposure.

**Precautionary Statement**

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye protection/face protection. Do not breathe vapors. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

**Response :** Get medical advice/attention if you feel unwell. IF exposed or concerned: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists:

**Storage:** Store locked up.

**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 GHS classification:** None.

**Substance(s) formed under the conditions of use:** Mixture of polydimethylsiloxanes, fillers and cross-linkers.

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**3. Composition/information on ingredients**

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**Mixtures**

Chemical Identity	CAS number	Content in percent (%)*	Notes
Silica	Trade secret	7 - 13%	# This substance has workplace exposure limit(s).
Oxime silane	Trade secret	3 - 7%	No data available.
butanone oxime vinylsilane	2224-33-1	1 - 5%	No data available.
Aminoethyl aminopropyl trimethoxy silane	1760-24-3	0.5 - 1.5%	No data available.
Carbon Black	1333-86-4	0.1 - 1%	# This substance has workplace exposure limit(s).
ETHYL METHYL KETOXIME	96-29-7	0.1 - 1%	# This substance has workplace exposure limit(s).

\* 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.

(1) The respirable particle(s) listed above are inextricably bound within the polymer matrix, and therefore does not present an inhalation hazard during normal use of this product. Tooling or machining of the cured product (sanding, cutting, milling) may release hazardous, respirable substances.

**4. First-aid measures**

**Ingestion:** Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

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

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

**Eye contact:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** None known.

**Hazards:** No data available.

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**Indication of immediate medical attention and special treatment needed**

**Treatment:** No data available.

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**5. Fire-fighting measures**

**General Fire Hazards:** Remove sources of combustibles. Extinguish the fire using fire-fighting media listed above.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Extinguish with foam, carbon dioxide or dry powder.

**Unsuitable extinguishing media:** No data available.

**Specific hazards arising from the chemical:** By heating and fire, irritating vapors/gases may be formed. In case of fire, carbon monoxide and carbon dioxide may be formed.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** Take precautionary measures against static discharges. Keep away from sources of ignition - No smoking.

**Special protective equipment for fire-fighters:** Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

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**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Keep upwind.

**Methods and material 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.

**Notification Procedures:** Remove sources of ignition.

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

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**7. Handling and storage**

**Precautions for safe handling:** Wear appropriate personal protective equipment. Keep away from sources of ignition - No smoking. Avoid inhalation of vapors and spray mists. Use only with adequate ventilation.

**Conditions for safe storage, including any incompatibilities:** No data available.

**8. Exposure controls/personal protection**

**Control Parameters**

**Occupational Exposure Limits**

Chemical Identity	type	Exposure Limit Values	Source
Silica	REL	6 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA	6 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	20 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
	TWA	0.8 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Carbon Black - Inhalable fraction.	TWA	3 mg/m3	US. ACGIH Threshold Limit Values (03 2015)
Carbon Black	REL	0.1 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	REL	3.5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	3.5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	3.5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

This product contains one or more substances with an occupational exposure limit. However, the respirable particle(s) of this/these substance(s) are inextricably bound within the polymer matrix. Therefore, we do not expect an exposure to this/these substance(s) during normal use of this product. Tooling or machining of the cured product (sanding, cutting, milling) may release hazardous, respirable substances.

**Appropriate Engineering Controls** Use only in well-ventilated areas.

**Individual protection measures, such as personal protective equipment**

**General information:** Wear suitable gloves and eye/face protection.

**Eye/face protection:** Safety glasses with side shields

**Skin Protection**

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<b>Hand Protection:</b>	Rubber or plastics gloves
<b>Other:</b>	Wear rubber boots. Chemical resistant clothing
<b>Respiratory Protection:</b>	Gas mask with organic vapor canister and dust and mist filter. If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).
<b>Hygiene measures:</b>	Avoid contact with eyes, skin, and clothing. Wash hands after handling. When using do not eat, drink or smoke.

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**9. Physical and chemical properties**

**Appearance**

<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Color:</b>	Black
<b>Odor:</b>	Faint
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	Not applied
<b>Initial boiling point and boiling range :</b>	Not applied not applicable
<b>Flash Point:</b>	162 °C
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Heat of combustion:</b>	No data available.
<b>Vapor pressure:</b>	Not applied
<b>Vapor density:</b>	No data available.
<b>Density:</b>	ca. 1.03 g/cm <sup>3</sup>
<b>Relative density:</b>	1.03
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	immiscible

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<b>Solubility (other):</b>	Insoluble
<b>Partition coefficient (n-octanol/water) Log Pow:</b>	No data available.
<b>Auto-ignition temperature :</b>	450 °C
<b>Decomposition temperature:</b>	No decomposition if stored and applied as directed.
<b>SADT:</b>	No data available.
<b>Viscosity, dynamic:</b>	No data available.
<b>Viscosity, kinematic:</b>	No data available.
<b>VOC:</b>	No data available.

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**10. Stability and reactivity**

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerisation does not occur.
<b>Conditions to avoid:</b>	Keep away from sources of ignition - No smoking.
<b>Incompatible Materials:</b>	Moisture.
<b>Hazardous Decomposition Products:</b>	Reacts with water/moisture liberating Methylketoxime (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.

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**11. Toxicological information**

<b>General information:</b>	Our Experience shows that our Silicone Elastomer products can be handled without risk to health if used properly and if the usual precautions for industrial hygiene are observed.
<b>Information on likely routes of exposure</b>	
<b>Ingestion:</b>	No data available.
<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	
<b>Ingestion:</b>	No data available.
<b>Inhalation:</b>	No data available.

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**Skin Contact:** No data available.

**Eye contact:** No data available.

**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**

**Oral**

**Product:** No data available.

**Specified substance(s):**

Silica LD 50 (Rat): > 15,000 mg/kg

Aminoethyl aminopropyl trimethoxy silane LD 50 (Rat): 2,995 mg/kg

ETHYL METHYL KETOXIME LD 50 (Rat, No data available.): 2,500 mg/kg

**Dermal**

**Product:** No data available.

**Specified substance(s):**

Aminoethyl aminopropyl trimethoxy silane LD 50 (Rabbit): > 2,000 mg/kg

ETHYL METHYL KETOXIME LD 50 (Rat, No data available.): > 500 mg/kg

**Inhalation**

**Product:** No data available.

**Repeated dose toxicity**

**Product:** No data available.

**Specified substance(s):**

Aminoethyl aminopropyl trimethoxy silane NOAEL (Rat, Oral, 28 d):  $\geq 500$  mg/kg

**Skin Corrosion/Irritation**

**Product:** No data available.

**Serious Eye Damage/Eye Irritation**

**Product:** No data available.



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**Respiratory or Skin Sensitization**

**Product:** No data available.

**Carcinogenicity**

**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Carbon Black Overall evaluation: 2B. Possibly carcinogenic to humans.

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** No data available.

**In vivo**

**Product:** No data available.

**Reproductive toxicity**

**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Target Organs**

Specific Target Organ Toxicity - Repeated Exposure: Cardiovascular system, blood system

**Aspiration Hazard**

**Product:** No data available.

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**Other effects:**

Nasal epithelial tissue atrophy occurred at all dose levels tested, but was reversible at lower doses. SUPPLIER RECOMMENDED WORKPLACE GUIDELINE: 3 ppm 8-hr TWA, Short term exposure limit (STEL) <10 ppm 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.

**Ingestion:** No data available.

**Inhalation:** No data available.

**Skin Contact:** No data available.

**Eye contact:** No data available.

**Oral**  
No data available.

**Dermal**  
No data available.

**Inhalation**  
No data available.

**Repeated dose toxicity**  
No data available.

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**Skin Corrosion/Irritation**

No data available.

**Serious Eye Damage/Eye Irritation**

No data available.

**Respiratory or Skin Sensitization**

No data available.

**Carcinogenicity**

No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No data available.

**US. National Toxicology Program (NTP) Report on Carcinogens:**

No data available.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

No data available.

**Germ Cell Mutagenicity**

**In vitro**

No data available.

**Germ Cell Mutagenicity**

**In vivo**

No data available.

**Reproductive toxicity**

No data available.

**Specific Target Organ Toxicity - Single Exposure**

No data available.

**Specific Target Organ Toxicity - Single Exposure**

No data available.

**Target Organs**

**Aspiration Hazard**

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**Other effects**                      No data available.  
No data available.

**12. Ecological information**

**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:**                              No data available.

**Specified substance(s):**

Silica	LC0 (Brachydanio rerio, 96 h): 5,000 mg/l
Aminoethyl aminopropyl trimethoxy silane	LC50 (Lepomis macrochirus): > 100 mg/l

ETHYL METHYL KETOXIME	LC50 (No data available., 96 h): 48 mg/l
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**Aquatic Invertebrates**

**Product:**                              No data available.

**Specified substance(s):**

Aminoethyl aminopropyl trimethoxy silane	EC50 (Daphnia magna, 48 h): 87.4 mg/l
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**Chronic hazards to the aquatic environment:**

**Fish**

**Product:**                              No data available.

**Specified substance(s):**

Silica	LC0 (Brachydanio rerio, 4 d): 5,000 mg/l
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**Aquatic Invertebrates**

**Product:**                              No data available.

**Toxicity to Aquatic Plants**

**Product:**                              No data available.

**Specified substance(s):**

Aminoethyl aminopropyl trimethoxy silane	EC50 (Algae (Pseudokirchneriella subcapitata), 96 h): 8.8 mg/l
	NOEC (Algae (Pseudokirchneriella subcapitata)): 3.1 mg/l

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**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**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.

**Known or predicted distribution to environmental compartments**

Silica No data available.

Oxime silane No data available.

butanone oxime vinylsilane No data available.

Aminoethyl aminopropyl No data available.

trimethoxy silane

Carbon Black No data available.

ETHYL METHYL No data available.

KETOXIME

**Known or predicted distribution to environmental compartments**

Siloxanes and Silicones, di- No data available.

Me hydroxy terminated

**Other Adverse Effects:** No data available.

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**13. Disposal considerations**

**Disposal instructions:** Disposal should be made in accordance with federal, state and local regulations.

**Contaminated Packaging:** Dispose of as unused product.

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**14. Transport information**

**DOT**

Not regulated.

SDS\_US

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**TSE387-B**

**IMDG**

Not regulated.

**IATA**

Not regulated.

**Special precautions for user:**

This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods.

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**15. Regulatory information**

**US Federal Regulations**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

None present or none present in regulated quantities.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

Immediate (Acute) Health Hazards

Delayed (Chronic) Health Hazard

**SARA 302 Extremely Hazardous Substance**

None present or none present in regulated quantities.

**SARA 304 Emergency Release Notification**

None present or none present in regulated quantities.

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**SARA 311/312 Hazardous Chemical**

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Silica	10000 lbs
Oxime silane	10000 lbs
butanone oxime	10000 lbs
vinylsilane	
Aminoethyl aminopropyl trimethoxy silane	10000 lbs
Carbon Black	10000 lbs
ETHYL METHYL KETOXIME	10000 lbs

**SARA 313 (TRI Reporting)**

None present or none present in regulated quantities.

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

**US State Regulations**

**US. California Proposition 65**

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Carbon Black                                      Carcinogenic.

**US. New Jersey Worker and Community Right-to-Know Act**

Chemical Identity

Siloxanes and Silicones, di-Me hydroxy terminated  
Silica  
Oxime silane  
butanone oxime vinylsilane

**US. Massachusetts RTK - Substance List**

No ingredient regulated by MA Right-to-Know Law present.

**US. Pennsylvania RTK - Hazardous Substances**

Chemical Identity

Silica

**US. Rhode Island RTK**

No ingredient regulated by RI Right-to-Know Law present.

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**Inventory Status:**

Australia AICS:	y (positive 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 DSL Inventory List:	n (Negative 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: Low Volume Exemption
Taiwan. Taiwan inventory (CSNN):	y (positive listing)	Remarks: None.

**16. Other information, including date of preparation or last revision**

**HMIS Hazard ID**

<b>Health</b>	*	2
<b>Flammability</b>		1
<b>Physical Hazards</b>		0
<b>PERSONAL PROTECTION</b>		

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; \*Chronic health effect

**Issue Date:** 09/06/2016

**Revision Date:** No data available.

**Version #:** 1.3

**Further Information:** "Wear eye, hand and respiratory protection when in handling."



**TSE387-B**

**Disclaimer:**

**Notice to reader**

Unless otherwise specified in section 1, Momentive products are intended for use in the manufacture and/or formulation of products and are not intended for direct consumer use. These products are not intended for long-lasting (> 30 days) implantation, injection or direct ingestion into the human body, nor for use in the manufacture of multiple use contraceptives.

"Wear eye, hand and respiratory protection when in handling."  
Keep out of the reach of children.

**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.

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