

1. Product and Company Information

Product Name: Touch -up paint hardener
Company Name: Panasonic Electric Works Chemical Co., Ltd.
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2. Abstract of Hazardous/Toxic Properties**[GHS Classification]****Physical/Chemical Hazard**

Inflammable liquid: Category 2

Health Hazard

Acute toxicity (Oral): Category 5

Acute toxicity (Percutaneous): Out of category

Acute toxicity (Inhalation: Gas): Not subject to classification

Acute toxicity (Inhalation: Vapor): Category 4

Acute toxicity (Inhalation: Powder dust, mist): Cannot be classified

Skin irritation/corrosion: Category 2

Serious eye damage/eye irritation: Category 2A

Respiratory organ sensitization: Cannot be classified

Skin sensitization: Out of category

Generative cell mutagenicity: Out of category

Carcinogenicity: Out of category

Reproductive toxicity: Category 1A

Specific target organ systemic toxicity (Single exposure): Category 1 (Central nervous system, kidney, general toxicity)

Category 3 (Respiratory tract irritation, Anesthetic effect)

Specific target organ systemic toxicity (Repeated exposure): Category 1 (Central nervous system, kidney, liver)

Aspiration hazard to respiratory organ: Category 1

Environmental Hazard

Aquatic environment hazard (Acute) Category 2

Aquatic environment hazard (Chronic) Out of category

[GHS Labeling]**[Information On Hazard/Toxicity]**

Highly inflammable liquid and vapor
Swallow harm
Inhalation harm
Skin irritation
Serious eye irritation
Adverse influence on generative function or unborn baby
Disorders of internal organs ((Central nervous system, kidney, general toxicity)
Risk of respiratory organ irritation
Risk of drowsiness or dizziness
Disorders of internal organs (Central nervous system, kidney, liver) from long-term or repeated exposure)
Risk of death from swallow or entry into the respiratory tract
Toxicity to aquatic creatures

[Precautions]**Safety Measures**

Do not handle the material before you read all safety instructions and understand them thoroughly.
Obtain instruction manuals before use.
During use of the material, do not eat, drink or smoke.
Keep the material away from a heat source, such as heat, spark, flame or high-temperature object.
Use explosion-proof electrical equipment, ventilator and illumination equipment.
Prevent ignition caused by electrostatic discharge or spark.
Use personal protective gear and ventilator. Avoid exposure.
Wear protective gloves, protective glasses and protective mask.
Use the material outdoors, or in a well-ventilated place.
Do not inhale mist, vapor or spray.
After handling the material, thoroughly wash the hands.
Avoid release to the environment.
Tightly seal the package

[Emergency Actions]

In case of a fire, take appropriate fire extinguishing measures.

If the material is inhaled, move to a place with fresh air, and take a rest in a posture that facilitates respiration.

If the material is swallowed, do not forcibly vomit it.

If the material touches the eyes, wash the eyes carefully with water for several minutes.

If contact lenses can be easily removed, remove and wash the lenses.

If the material touches the skin, wash the skin with a large quantity of water and soap.

If the material touches the skin (or hair), immediately remove all stained clothes.

To reuse protective clothes, wash stained clothes.

In case of exposure, or if there is possibility of exposure, undergo doctor's diagnosis and medical treatment.

[Storage]

Tightly seal the package, and keep it in a cool, well-ventilated place with a lock.

[Disposal]

Disposal of the materials and packages should be trusted to a specialized waste disposal agent authorized by the prefectural governor.

3. Information on Composition and Ingredients

Differentiation between single material and mixture: Mixture

Chemical name (or general name): Silicone resin solution

Ingredient: (Applied to hazardous/toxic substances)

Ingredient	Content	CAS No.	Kashin-ho No. (Act on the evaluation of chemical substances and regulation of their manufacture, etc.)	Anei-ho No (Industrial Safety and Health Act)	PRTR
Silicone resin	50-60%				
Toluene	41%	108-88-3	3-2	407	Class 1-300
IPA	5-10%	67-63-0	2-207	494	

4. First Aid Actions

Inhalation: Move to a place with fresh air. In case of dyspnea, undergo artificial respiration or oxygen inhalation, and immediately take doctor's diagnosis.

Skin: Immediately wipe off the adhering substance with a soft cloth, etc. Thoroughly wash it off with a large quantity of water and soap. Do not use a solvent or thinner. If there is a change in appearance or a pain, take doctor's diagnosis.

Eyes: Immediately wash the substance with a large quantity of clean running water for at least 15 minutes. Completely wash the eyes including inside of the eyelids. Get medical attention as soon as possible.

Ingestion: In case of accidental swallow, remove a residual substance from the mouth, and rest quietly in bed. Immediately take doctor's diagnosis.

Since the substance may include volatile liquid, it is more hazardous to vomit it forcedly.

Do not allow vomited substance to be re-swallowed.

5. Fire Fighting Procedures

Extinguishing Media: Carbon dioxide gas fire extinguishing agent, foam fire extinguishing agent, powder fire extinguishing agent

Extinguishing Media to be Avoided: Water

Fire Fighting Procedures: Immediately remove combustible objects from the surrounding area. Fire extinguishing action should be conducted from the windward side.

Protection for Fire Fighters: Use respiratory protection equipment.

6. Accidental Release Measures

Personal Precautions: During work, wear appropriate protective gear (gloves, protective mask, apron, goggles, etc.).

The action should be conducted from the windward side.

Environmental Precautions: Remove an ignition source from the surrounding area. In preparation for a fire, provide an appropriate fire extinguisher.

Dispose of adhering substances and wastes according to related laws and ordinances.

Collecting method: In case of a large amount of leak, after taking outflow preventive measures with sand, sandbags, etc., collect the leak substance into an empty container that can be tightly sealed.

In case of a small amount of leak, absorb the leak substance with a soft cloth, etc, and collect it into an empty container that can be tightly sealed.

Collect the substance with tools made of appropriate materials, so that a spark will not be generated by a shock or static electricity.

7. Handling And Storage Precautions

Handling Precautions: Wear protective glasses, protective gloves and respiratory protective gear.

Keep fire off. Seal the package every time it is closed.

For the purpose of electrostatic elimination, ground equipment and appliances.

Use electrical equipment and appliances with explosion-proof structure.

Do not use a fire, spark and high-temperature object around the material handling site. (Use spark-free tools.)

If fabrics, paper or rollers damped with spray dust or chemical are stacked, spontaneous ignition may occur. Soak them in water until disposal.

Storage Precautions: Avoid storing the package in a place exposed to direct sunlight. Store it in a well-ventilated, cool and dark place. The storing place must be free from fire. Avoid installation of a heat source. Do not store the material in the same place with oxidizing substance or organic peroxide. The package must be tightly sealed.

8. Exposure Prevention and Protective Measures

Control Density: 50 ppm (Toluene)

200 ppm (IPA)

Allowable Density: 50 ppm (Toluene) Japan Society for Occupational Health (2000)

400 ppm (IPA)

TLV-TWA 50 ppm (Toluene) ACGIH (1999)

400 ppm (IPA)

Measures for Facility: For a chemical handling facility, use explosion-proof structure. Overall and local exhaust systems should be provided to prevent vapor from remaining in the facility. Liquid transfer, pumping and stirring units must be grounded. In preparation for an emergency case, provide eye washing equipment and a safety shower. Particularly for work in an airtight structure (e.g. inside of a tank), provide a ventilator at the bottom of the site.

Protective Gear:

Respiratory protective supplied gear: Gas mask for organic gas. During work in an airtight place, wear air-supplied respirator.

Hand protective gear: Oil-proof protective gloves

Eye protective gear: Protective glasses (goggles)

Skin and body: Oil-proof protective boots, protective clothes and protective apron

9. Physical And Chemical Properties

State: Liquid

Color: Colorless

Odor: Solvent odor

Boiling Point: 110.7°C (Toluene), 82.3°C (IPA)

Density: 1.04

Flash Point: 4.4°C, Ignition point: 536°C (Toluene), 460°C (IPA)

Explosion Limit: (Lower limit) 1.2%, (Upper limit) 7.1% (Toluene)

(Lower limit) 2.5%, (Upper limit) 12% (IPA)

Solubility: Hardly soluble in water

Other: Nothing particular

10. Stability And Reactivity

Stability:	Intrinsically stable. However, polymerization or decomposition may occur in contact with strong acid or strong alkali.
Reactivity:	Because of hydrolytic degradation property, use caution against mixture of moisture.
Materials to be Avoided:	Acute reaction with strong oxidizing agent, strong nitric acid, halogen, etc.

11. Information on Toxicity (Toluene)

Toxicity of Ingredients

Ingredient	Acute Toxicity
Toluene	Oral LD50: 5000 mg/kg (rat), Inhalation LC50: 8000 ppm x 4 h (rat), Skin LD50: 14000 mg/kg (rabbit)
IPA	Oral LD50: 5045 mg/kg (rat), Oral LD50: 3600 (mouse)

Chronic/Long-term Toxicity: 60 to 100 ppm exposure for 4 years results in neural poisoning, etc.

Skin: Risk of absorption, Dry skin and rash.

Eyes: Irritation of the eyes and mucous membrane. Rash, pain

Inhalation: Irritation of the respiratory tract and respiratory organ. Damage to the central nerves. Headache, dizziness, vomiting, unconsciousness, sense of exhaustion, diarrhea. Hangover continues for one or two days, and in the worst case, it may result in death.

12. Information on Environmental Impact

Mobility: Because of physical properties, movable to the atmosphere, water and soil environments. Particularly, take measures to prevent the material and cleaning water from directly flowing into the ground, river and drainage.

Persistency/Decomposition Property: Regarding contained solvent, excellent decomposition property has been provided as a result of existing chemical substance inspection based on the *Kashin-ho*.

13. Precautions for Disposal

* The contents and packages must be disposed of by following the specified procedure according to the Industrial Waste Disposal Law, or trusted to an authorized industrial waste disposal agent under a contract.

* After cleaning the packages, machines and equipment, cleaning waste liquid must not be run into the ground or drainage.

* Wastes generated by drain water treatment and incineration must be disposed of according to the Waste Management and Public Cleansing Act and related ordinances, or trusted to an authorized disposal agent.

* To incinerate waste paint, adsorb it with diatomite, and incinerate it in an open incinerator little by little.

* Painted products, waste paint and incineration ash may correspond to the specific control industrial wastes. Disposal of such substances shall conform to the relevant law and ordinance.

* During incineration of wastes, toxic gas will be generated. Use an incinerator with an appropriate exhaust system.

14. Precautions for Transportation

INTERNATIONAL CONTROL

Marine Transportation Control Information: Conform to the IMO regulation.

UN No.: 1263

Proper shipping name: Paint

Class: 3

Packing group: II

Marine pollutant: Not applicable

Aerial Transportation Control Information: Conform to the ICAO/IATA regulation.

UN No.: 1263

Proper shipping name: Paint

Class: 3

Packing group: II

DOMESTIC CONTROL (Japan)

Land Transportation Control Information: Conform to the Fire Service Act.

Conform to the *Dokugeki-ho* (Poisonous and Deleterious Substances Control Act).

Marine Transportation Control Information: Conform to the Ship Safety Act.

UN No.: 1263

Product name: Paint

Class: 3

Packing group: II

Marine pollutant: Not applicable

Aerial Transportation Control Information: Conform to the Civil Aeronautics Act.

UN No.: 1263

Product name: Paint

Class: 3

Packing group: II

Special Safety Measures:

Hazardous substances must be loaded so that the hazardous substances or carrying packages that contains the relevant hazardous substances will not fall, overturn or suffer damage.

Hazardous substances or carrying packages that contains the relevant hazardous substances must be transported so that the packages will not suffer remarkable friction or oscillation.

If there is a risk of remarkable leak of hazardous substances during transportation, take emergency measures to prevent the hazard, and contact the nearest fire station or other related organization.

During transportation, avoid exposure to direct sunlight. Load packages so that they will not suffer damage, corrosion or leak, and secure load collapse preventive measures.

Do not stack heavy objects.

15. Applicable Laws And Ordinances

Fire Service Act:	Hazardous substance Class 4, Petroleum Class 1, (non-water-soluble)
Industrial Safety and Health Act:	Hazardous substance, Inflammable substance, Ordinance on the Prevention of Organic Solvent Poisoning: Class 2 organic solvent, Toxic substance whose name should be notified.
Ship Safety Act:	Inflammable liquid with medium flash point
PRTR Law:	Class 1 specific chemical substance (Toluene)
Poisonous and Deleterious Substances Control Act:	Not applicable
Offensive Odor Control Act:	Content of specific substance (Toluene)
Civil Aeronautics Act:	Inflammable liquid

16. Other

The description in this document has been prepared based on reference materials, information and data that we have obtained until now, but it may be revised if there is a new finding. The amount of contents, and physical and chemical properties described in this document are not guaranteed values.