

MATERIAL SAFETY DATA SHEET

# 87051 (主剤)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: TAMIYA EPOXY PUTTY QUICK TYPE(Resin)  
Synonym(s): None  
Product Code: None  
General Use: Adhesives  
Product Description: Epoxy resin system adhesive  
MSDS Number: (E) OE-3-02  
Company Name: ALTECO INC  
Address: 5-8 NISHIEKIMAE-CHO OSAKA JAPAN  
Telephone No: 072-627-1617  
Emergency Telephone No: 072-627-1617

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	wt%	CAS Registry No.	Chemical Formula
Bisphenol A type epoxy resin compounds(Half solid type)	15-25	25036-25-3	secret
Special epoxy resin	20>	secret	secret
Filling material	60<	secret	secret
Reactive diluent	10>	secret	secret

3. HAZARDS IDENTIFICATION

Main Symptoms: Putty  
Odor Epoxy smell  
Repeated or prolonged contact may cause skin sensitization.  
Reacts violently with acid anhydrides, strong mineral acids, strong bases and oxidizing agents.  
The substance irritates the eyes, the skin and is to be mutagenic.

4. FIRST AID MEASURES

Inhalation: Move to fresh air. Get medical attention.  
Skin contact: Remove contaminated clothing and wipe excess from skin.  
Wash with soap and water. Get medical attention.  
Eye contact: Flush eyes with plenty of water for several minutes.  
(remove contact lenses if easily possible)  
Get medical attention immediately.  
Ingestion: Wash mouth with plenty of water and give water to drink.  
Get medical attention immediately.

5. FIRE FIGHTING MEASURES

Fire-fighting Media: Dry chemical, water spray, foam, carbon dioxide.  
Fire-fighting instruction: Fire-fighter should wear self contained breathing apparatus and full protective clothing.  
Special hazard: Any special hazard.  
(Eg. Explosion properties and explosion hazard in the presence of various chemicals.)

6. ACCIDENTAL RELEASE MEASURES

Leak/Spill: Take up with an absorbent substance such as sand, clay, then place in a container for chemical waste. Material is flammable eliminate all ignition sources.  
Flush trace residues with water.  
Do not allow residues to enter waterways.

7. HANDLING AND STORAGE

Handling: Strict hygiene.  
Do not eat, drink, or smoke during work.  
Wash hands whenever leaving the work place.  
Storage: Store in tightly closed original container in a cool ventilated warehouse.  
Incompatible products: Acid anhydride, amines, strong bases and oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit: N/A  
Engineering measure: Local exhaust  
Personal protection: Wear protective cloths, impervious gloves, splash-proof goggles and respirator and set eye washing facilities near to the work place.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White putty type  
Odor: Epoxy smell  
Solubility in water: Negligible  
Flash point: above 200°C(Cleveland open cup)  
Specific Gravity: 1.55-1.75(20°C)

## 10. STABILITY AND REACTIVITY

Condition to avoid: Avoid heat, sparks and flame.  
Incompatibles: Acid anhydride, amines, strong bases and oxidants.  
Hazardous polymerization: Will not occur.

## 11. TOXICOLOGICAL INFORMATION

Toxicity Data: LD<sub>50</sub> 11400mg/kg (oral rat)  
Effects of overexposure: Repeated or prolonged contact may cause skin sensitization.  
The substance irritates the eyes, the skin and is to be mutagenic.

## 12. ECOLOGICAL INFORMATION

Mobility: Slightly soluble in water.  
Bioaccumulation: Not available  
Biodegradability: Not available  
Aquatic toxicity: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 13. DISPOSAL INFORMATION

Dispose in accordance with the Government and local environmental regulations.

## 14. TRANSPORT INFORMATION

UN Class or division: 9  
UN No.: 3077(Environmentally hazardous substance solid, n.o.s)  
Packing group: III

## 15. REGULATORY INFORMATION

Proposed classification: Xi Irritant  
N Dangerous for the environment  
Risk phrase: R36/38 ·Irritating to eyes and skin.  
R43 ·May cause sensitization by skin contact.  
R51/53 ·Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
Safety phrase: S28 ·After contact with skin, wash immediately with soap and plenty of water.  
S37/39 ·Wear suitable gloves and eyes/face protection.  
S61 ·Avoid release to the environment.  
Refer to special instructions/Safety data sheets.

## 16. OTHER INFORMATION

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of ALTECO INC.

It relates only to the specific material designated herein, and does not relate to use in combination with any other material or process. ALTECO INC assume no responsibility for use or reliance upon this information.

MATERIAL SAFETY DATA SHEET

#8705.1(硬化剂)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: TAMIYA EPOXY PUTTY QUICK TYPE (Hardener)  
Synonym(s): None  
Product Code: None  
General Use: Adhesives  
Product Description: Epoxy hardener system adhesive  
MSDS Number: (E) OE-3-02  
Company Name: ALTECO INC  
Address: 5-8 NISHIEKIMAE-CHO OSAKA JAPAN  
Telephone No: 072-627-1617  
Emergency Telephone No: 072-627-1617

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	wt%	CAS Registry No.	Chemical Formula
Modified polyamine	40>	secret	secret
Benzyl alcohol	1-10	100-51-6	secret
Filling material	60<	secret	secret

3. HAZARDS IDENTIFICATION

Special hazards for man and environment None

4. FIRST AID MEASURES

After inhalation: Move to fresh air.  
After skin contact: Rinse with running water and soap. Apply replenishing cream.  
Change all contaminated clothing.  
After eye contact: Rinse immediately with plenty of running water(for 10 minutes), seek medical attention if necessary.  
After ingestion: Rinse mouth and throat. Drink 1-2 glasses of water. Seek medical advice.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media: Water spray jet foam, extinguishing powder, carbon dioxide.  
Extinguishing media which must not be used for safety reasons: High pressure water jet  
Combustion products or gases to be formed: Carbon oxides, Sulfur oxides.

6. ACCIDENTAL RELEASE MEASURES

General information: Keep away from sources of ignition and naked flames.  
Personal precautions: Avoid contact with skin and eyes. Ensure adequate ventilation.  
Environmental precaution: Do not allow large amounts to be released into the sewer system.  
Process for cleaning and take-up: Remove with liquid-absorbing material (sand, peat, sawdust).

7. HANDLING AND STORAGE

Handling: Ensure good ventilation/suction at the workplace.  
Avoid open flames and sources of ignition.  
Storage: Ensure adequate ventilation.  
Keep container tightly sealed.  
Do not store together with oxidants.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information for system design: Ensure good ventilation/suction at the workplace.  
Hand protection: Suitable are protective gloves with the following specification.  
The recommendation is valid for laboratory conditions, specific workplace conditions must be taken into consideration separately.

Recommended protective gloves material / coating thickness	Breakthrough time	Remark
Nitrile / 0.3 mm	Level 3 > 60 min.	In case of spray contact

Eye protection: Goggles which can be tightly sealed.  
General protection and hygiene measures: Avoid skin-contact. Avoid eye contact.  
Exposure Limit: N/A

Engineering measure: Local exhaust

## 9. PHYSICAL AND CHEMICAL PROPERTIES

State: putty  
Odor: amine odor  
Color: Oak color  
Flash point: above 101°C (Cleveland open cup)  
Specific Gravity: 1.50-1.70 (20°C)

## 10. STABILITY AND REACTIVITY

Materials to avoid: Vigorous reaction with strong oxidizing agents, epoxy resins.  
Dangerous decomposition products: Amine compounds, ammonia and CO, Nox in fire.  
The nitrogen oxides are toxic and may react with water to form nitric acid.

## 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity: Unknown  
Lodol effect: Irritate eyes and respiratory tract.  
Sensitization: Unknown  
Skin irritation: Slight irritation on rats.(by SPI testing method)  
Mutagenicity: Unknown  
Carcinogenicity: Unknown

## 12. ECOLOGICAL INFORMATION

Residual and Degradability: Unknown  
Biological accumulation: Unknown  
Toxicity in fish: Unknown

## 13. DISPOSAL INFORMATION

Product disposal: Special waste incineration with the approval of the responsible local authority.

## 14. TRANSPORT INFORMATION

(See also Section 7)

Avoid leakage, dropping and falling, and breakage of the container.

When loading make sure all containers are securely loaded.

Do not put the containers near fire, ignitions. (Watch for fire.)

Domestic regulations

Inland transportation: Transport in accordance with the regulations of Fire-Fighting-law and the Labor Safety Standards Law.

Air transportation: In accordance with IATA, etc.

UN Classification: Not classified as "dangerous" in transport regulations.

## 15. REGULATORY INFORMATION

Proposed classification: Xi Irritant  
N Dangerous for the environment  
Risk phrase: R36/38 · Irritating to eyes and skin.  
R43 · May cause sensitization by skin contact.  
R51/53 · Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
Safety phrase: S28 · After contact with skin, wash immediately with soap and plenty of water.  
S37/39 · Wear suitable gloves and eyes/face protection.  
S61 · Avoid release to the environment.  
Refer to special instructions/Safety data sheets.

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