
1. PRODUCT AND COMPANY IDENTIFICATION

Product Code	TRISTONE JOINT ADHESIVE COMPONENT A
Trade Name	Substance
Product Type	THINKSTONE Co.
Manufacturer/Supplier	
Address	284-5 BOTONG-RI, JEONGNAM-MEON, HWASEONG-SI, GYEONGGI-DO 445-963, SOUTH KOREA
Phone Number	82-31-8059-3931
Fax Number	82-31-8059-3942

2. COMPOSITION / INFORMATION ON THE COMPONENTS

Acrylic Polymer	15 ~ 40%	CAS Number : 9011-14-7
Methyl Methacrylate Monomer	35 ~ 65%	CAS Number : 80-62-6
Alumina Trihydrate	10 ~ 40%	CAS Number : 21645-51-2

3. HAZARD IDENTIFICATION

Main Hazards	Harmful if swallowed. Risks of serious damage to eyes.
Health Effects-Eyes	Liquid or mist will cause severe conjunctival irritation and corneal damage.
Health Effects-Skin	Material may cause irritation. repeated or prolonged contact may produce defatting of the skin leading to irritation and dermatitis.
Health Effects-Ingestion	Swallowing may have the following effects: irritation of mouth, throat and digestive tract. nausea. difficulty with breathing. lung damage.
Health Effects-Inhalation	Low volatility makes acute effects unlikely at ambient temperatures.

4. FIRST AID MEASURES

First Aid-Eyes	Immediately flood the eye with plenty of water for at least 15 minutes. holding the eye open. Obtain medical attention urgently.
First Aid-Skin	Wash skin thoroughly with soap and water. Contaminated clothing should be washed or dry-cleaned before re-use.
First Aid-Ingestion	Wash out mouth with water. (Never administer anything by mouth if a casualty is losing consciousness, is unconscious or is convulsing). Do not induce vomiting. Keep warm and at rest. If there is difficulty in breathing, give oxygen. If breathing stops or shows signs of failing, apply artificial respiration. Do not use mouth to mouth ventilation. Obtain medical attention urgently.
First Aid-Inhalation	Remove from exposure. Keep warm and at rest. If there is difficulty in breathing, give oxygen. If breathing stops or shows signs of failing, give artificial Respiration.

Advice to Physicians	Obtain medical attention. Treat symptomatically.
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5. FIRE FIGHTING MEASURES

Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Keep containers and surroundings cool with water spray.
Unsuitable Media	Do not use water jet.
Special Hazards	This product may give rise to hazardous fumes in a fire.
Protective Equipment	Wear self contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear appropriate protective clothing. Wear respiratory protection.
Environmental Precautions	Try to prevent the material from entering drains or water courses. Advise Authorities if spillage has entered water course or sewer or has contaminated soil or vegetation.
Spillages	Contain and absorb using earth, sand or other inert material. Transfer into suitable containers for recovery or disposal.

7. HANDLING AND STORAGE

Handling	Keep container tightly closed when not in use. Use in well ventilated area. Avoid inhaling vapour. Avoid contact with eyes, skin and clothing. Emergency shower and eye wash facilities should be readily available.
Storage	Storage area should be : cool, dry, Well ventilated.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure	Material may cause irritation to mucous membranes, skin burns, eye corrosion and permanent injury. (TLV : 100 ppm)
Engineering Control Measures	Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions. If engineering controls and work practices are not effective in preventing or controlling exposure, then suitable personal protective equipment, which is known to perform satisfactorily, should be used.
Respiratory Protection	Respiratory protection if there is risk of breathing mists or vapors from heated material.
Hand Protection	Rubber or polyethylene gloves.
Eye Protection	Chemical goggles must be worn during all handling operations.
Body Protection	If there is danger of splashing, wear impermeable suit.
Ventilation	During application, adequate ventilation must be provided.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Viscous liquid.
Color	Various
Odor	Acrylic
Boiling Point	101 °C
Flash Point (TOC)	10°C
Ignition Temperature	430°C
Explosion Limits	Lower 2.1%, Upper 12.5%
Solubility in Water	Slightly soluble
Vapor Density	3.42
Specific gravity	1.2
Viscosity (CPS)	20,000 at 23°C. (typical)

10. STABILITY AND REACTIVITY

Stability	Stable under normal condition.
Condition to avoid	Heat, spark, flames and other sources of ignition.
Materials to avoid	Oxidizing agents. Air.
Hazardous Decomposition	Combustion will generate : oxides of carbon. smoke. methyl methacrylate monomer.
Hazardous Polymerization	Polymer may be formed at high temperature or addition of oxidizing materials or direct sunlight.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	Harmful by ingestion.
Carcinogenicity	NTP : None assigned JARC : None assigned OSHA : None assigned
Contact Hazard	Moderate

12. ECOLOGICAL INFORMATION

Mobility	The product will not dissolve in water.
Persistence/Degradability	The product is expected to be partially or slowly biodegradable.
Bio-accumulation	The product is not expected to bioaccumulate.
Ecotoxicity	No data

13. DISPOSAL

Product Disposal	Dispose of in accordance with all applicable local and national regulations. Incineration is the recommended method of disposal.
Container Disposal	Empty containers may contain hazardous residues. Labels should not be removed from containers until they have been cleaned. Contaminated containers must not be treated

as household waste. Containers should be disposed of by landfill or incineration as appropriate.

14. TRANSPORT INFORMATION

*** This information relates to the kit as a whole (Component A, Component B).

ADR / RID – Class	UN-NO 1133	Class 3	Item 5(C)
	Proper shipping name : Adhesives		
	Term-Card R-30G80	ADR/RID Labels : 3	
ICAO – Class	UN-NO 1133	Class 3	Subrisks
	Proper shipping name : Adhesives		
	Packing Group III	ICAO Labels : Flammable liquid	

15. REGULATORY INFORMATION

Labelling Information	Warning : Flammable, Irritant. Contents : Methyl Methacrylate, Alumina Trihydrate Common name : TRISTONE ADHEDIVE COMPONENT A
Caution	Always wear safety goggles and protective gloves. Keep away from children. TRISTONE ADHEDIVE should be stored in a cool and dark area. Avoid breathing vapor and use only with adequate ventilation. Keep away from heat, sparks, open flame and other combustible materials. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

We hereby certify that the above statements are true and correct in every respect.
If the statements are not true, all responsibility will belong to THINKSTONE CO..

Signature / Issued Date :

President / Namshin Cho

THINKSTONE Co.