

MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : Glue Primer Banana
First Issue : Aug. 1. 2018 Company
Identification : Hejin Chemecal Co., Ltd
: 157 Shinhyeon-ro, Siheung-si, Gyeonggi-do, 180 49 Rep. of Korea

SECTION 2 – COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT	CAS. NO
Di -water	7732-18-5
Polyvinylpyrrolidone	900-33-98
Deoxytetrone Acid	15-18-61-2
Cellulose	9004-34-6
Ethyl Alcohol	64-17-5
Acetic Anhydride	108-24-7
Methylparaben	1760-24-3

SECTION 3 – HAZARDS

IDENTIFICATION

Emergency Overview

- a) Appearance: Colorless clear liquid.
- b) Flash Point: 16.6 deg C. Flammable liquid and vapor. May cause central nervous system depression. Causes severe eye irritation. Causes respiratory tract irritation. Causes moderate skin irritation. This substance has caused adverse reproductive and fetal effects in humans. Warning! May cause liver, kidney and heart damage.
- c) Target Organs: Kidneys, heart, central nervous system, liver.

Potential Health Effects

- a) Eye : Causes severe eye irritation. May cause painful sensitization to light. conjunctivitis and corneal
- b) Skin : Causes moderate skin irritation. May cause cyanosis of the extremities
- c) Inhalation : Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Causes respiratory tract irritation. May cause narcotic effects in high concentration. Vapors may cause dizziness or suffocation
- d) Chronic : May cause reproductive and fetal effects. Laboratory experiments have resulted in mutagenic effects. Animal studies have reported the development of tumors. Prolonged exposure may cause liver, kidney, and heart damage.

SECTION 4 – FIRST AID MEASURES

- a) Ingestion : Do not induce vomiting. If victim is conscious and alert, give 2-4 cupful of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.
- b) Inhalation : Remove from exposure and move to fresh air immediately. If not breathing, give

artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

- a) Skin contact : Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Flush skin with plenty of soap and water.
- b) Eye contact : Flush with water thoroughly for at least 15 minutes. Seek immediate medical assistance.

Notes to Physician : Treat symptomatically and supportively. Persons with skin or eye disorders or liver, kidney, chronic respiratory diseases, or central and peripheral nervous system diseases may be at increased risk from exposure to this substance.

Antidote : Replace fluid and electrolytes.

SECTION 5 – FIRE FIGHTING MEASURES

General Information

- a) Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire.
- b) Flammable Liquid can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire exposed containers. Water may be ineffective. Do NOT use straight streams of water.
- c) Flash Point: 16.6 deg C (61.88 deg F)
- d) Autoignition Temperature: 363 deg C (685.40 deg F)
- e) Explosion Limits, Lower:3.3 vol % Upper: 19.0 vol %

NFPA Rating: (estimated) Health: 2; Flammability: 3; Instability: 0

SECTION 6 – ACCIDENTAL RELEASE MEASURES

General Information

- a) Use proper personal protective equipment as indicated in Section Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

SECTION 7 – HANDLING AND STORAGE

- a) Handling: Wash thoroughly after handling. Use only in a well-ventilated area. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames
- b) Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area. Do not store near perchlorates, peroxides, chromic acid or nitric acid

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

- a) Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Ethyl alcohol	1000 ppm TWA	1000 ppm TWA; 1900 mg/m ³ TWA 3300 ppm IDLH	1000 ppm TWA; 1900 mg/m ³ TWA
Water	none listed	none listed	none listed

OSHA Vacated PELs: Ethyl alcohol: 1000 ppm TWA; 1900 mg/m³ TWA Water: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

- a) Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
b) Skin: Wear appropriate protective gloves to prevent skin exposure.
c) Clothing: Wear appropriate protective clothing to prevent skin exposure.
d) Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- a) Appearance : Clear Liquid
b) Odor : Mild, rather pleasant, like wine
c) Color : Colorless
d) Vapor Pressure: 59.3 mm Hg @ 20°C
e) Evaporation Rate: Not available
f) Viscosity : 1.200 cP @ 20°C
g) Boiling Point : 78 degree Celsius
h) Freezing/Melting Point : -114.1°C
i) Decomposition Temperature: Not available
j) Solubility : Miscible
k) Specific Gravity/Density: 0.790 @ 20°C
l) Molecular Formula : C₂H₅OH
m) Molecular Weight : 46.0414

SECTION 10 – STABILITY AND REACTIVITY

- a) Chemical Stability: Stable under normal temperatures and pressures.
b) Conditions to Avoid: Incompatible materials, ignition sources, excess heat, oxidizers.
c) Incompatibilities with Other Materials: Strong oxidizing agents, acids, alkali metals, ammonia, hydrazine, peroxides, sodium, Acid Anhydrides, Calcium Hypochlorite, Chromyl Chloride, Nitrosyl Perchlorate, Bromine Pentafluoride, Perchloric Acid, Silver Nitrate, Mercuric Nitrate, Potassium tert Butoxide, Magnesium Perchlorate, Acid Chlorides, Platinum, Uranium Hexafluoride, Silver Oxide, Iodine Heptafluoride, Acetyl Bromide, disulfuryl difluoride, tetrachlorosilane + water, Acetyl Chloride, Permanganic Acid, Ruthenium (VIII) Oxide, Uranyl Perchlorate, Potassium Dioxide.
d) Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

- e) Hazardous Polymerization: Will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 64-17-5 : KQ6300000

CAS# 7732-18-5 : ZC0110000

LD50/LC50:

CAS# 64-17-5:

Draize test, rabbit, eye: 500 mg Severe;

Draize test, rabbit, eye: 500 mg/24H Mild;

Draize test, rabbit, skin: 20 mg/24H Moderate;

Inhalation, mouse: LC50 = 39 gm/m³/4H

Inhalation, rat: LC50 = 20000 ppm/10H;

Oral, mouse: LD50 = 3450 mg/kg;

Oral, rabbit: LD50 = 6300 mg/kg;

Oral, rat: LD50 = 9000 mg/kg;

Oral, rat: LD50 = 7060 mg/kg;

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg;

Carcinogenicity:

CAS# 64-17-5:

ACGIH: A4 - Not Classifiable as a Human Carcinogen CAS# 7732-18-5: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology : Ethanol has been shown to produce fetotoxicity in the embryo or fetus of laboratory animals. Prenatal exposure to ethanol is associated with a distinct pattern of congenital malformations that have collectively been termed the "fetal alcohol syndrome".

Teratogenicity : Oral, Human - woman: TDLo = 41 gm/kg (female 41 week(s) after conception) Effects on Newborn - Apgar score (human only) and Effects on Newborn - other neonatal measures or effects and Effects on Newborn - drug dependence.

Reproductive Effects: Intrauterine, Human - woman: TDLo = 200 mg/kg (female 5 day(s) pre-mating)

Fertility - female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated).

Neurotoxicity : No information available.

Mutagenicity : DNA Inhibition: Human, Lymphocyte = 220 mmol/L.; Cytogenetic Analysis: Human, Lymphocyte = 1160 gm/L.

Cytogenetic Analysis: Human, Fibroblast = 12000 ppm.; Cytogenetic Analysis: Human, Leukocyte = 1 pph/72H (Continuous)

Sister Chromatid Exchange: Human, Lymphocyte = 500 ppm/72H (Continuous)

Other Studies: Standard Draize Test(Skin, rabbit) = 20 mg/24H (Moderate)

Standard Draize Test: Administration into the eye (rabbit) = 500 mg (Severe).

SECTION 12 – ECOLOGICAL INFORMATION

- a) Ecotoxicity: Fish: Rainbow trout: LC50 = 12900-15300 mg/L; 96 Hr; Flow-through @ 24-24.3°C Rainbow trout: LC50 = 11200 mg/L; 24 Hr

- b) Fingerling (Unspecified) ria: *Phytobacterium phosphoreum*: EC50 = 34900 mg/L; 5-30 min; Microtox test When spilled on land it is apt to volatilize, biodegrade, and leach into the ground water, but no data on the rates of these processes could be found. Its fate in ground water is unknown. When released into water it will volatilize and probably biodegrade. It would not be expected to adsorb to sediment or bio concentrate in fish.
- c) Environmental: When released to the atmosphere it will photo degrade in hours (polluted urban atmosphere) to an estimated range of 4 to 6 days in less polluted areas. Rainout should be significant
- d) Physical: No information available
- e) Other: No information available

SECTION 13 – DISPOSAL CONSIDERATIONS

- a) Must be disposed of in accordance with local regulations.

SECTION 14 – TRANSPORTATION INFORMATION

- a) Transport in accordance with local regulations.

SECTION 15 – OTHER 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. Please consult your local sales representative for any further information.