Material Safety Data Sheet

MSDS Number★ NABAKEM NBM-8002	PAGE
MEGA CHECK PENETRANT	(1 / 5)

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Identity (Trade Name As Used On Label) : MEGA CHECK PENETRANT

Chemical Family : Blended Compound

Manufacturer Name /Address :

NAMBANG CNA CO., LTD. / 392-3 Chupal-ri, Paengsung-Eup, Pyongtaek-si, Kyonggi-do, KOREA 451-805

TEL : 82 31 651 5911~8 FAX : 82 31 691 6441 / 82 31 658 6441

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SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS NUMBER	%★	Hazardous
Aromatic solvent	64742-94-5	40~50	-
Diacetone alcohol	123-42-2	5~15	-
Castor oil	8001-79-4	1~10	-
Red oil	1320-06-5	<3	-
Liquified petroleum gas	68476-85-7	25~35	-

SECTION 3. HAZARD IDENTIFICATION

NFPA Rating :

NFPA Rating / Ingredients	Health	Flammability	Reactivity
Aromatic solvent	2	1	0
Diacetone alcohol	2	2	0
Castor oil	2	1	0
Red oil	1	1	0
Liquified petroleum gas	2	4	0

Eye Contact : Vapors cause eye irritation. Splashes cause severe irritation, possible corneal burns and eye damage.

Skin Contact : Causes skin irritation. May cause dermatitis.

Inhalation : Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath. Inhalation of high concentrations may affect the central nervous system and have a

narcotic effect.

Ingestion : Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea. Symptoms may parallel those from inhalation.

SECTION 4. FIRST AID PROCEDURES

Inhalation : Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Eye : Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Skin : In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Call a physician.

Ingestion : If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

SECTION 5. FIRE AND EXPLOSION HAZARD DATA

Flash Point : -73℃(Liquified petroleum gas)

Auto-Ignition Temperature : No information found

Flammability Limits in Air % by Volume : 1.9 / 9.5% (Liquified petroleum gas)

Extinguisher Media : Dry chemical, alcohol foam or carbon dioxide. Water may be ineffective. Water spray may be used to keep fire exposed containers cool.

Special Fire Fighting Procedures : In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Combustion by-products include phosgene and hydrogen chloride gases. Structural firefighters' clothing provides only limited protection to the combustion products of this material.

Unusual Fire and Explosion Hazards : No information found

SECTION 6. ACCIDENTAL RELEASE MEASURES

That remove in suitable receptacle for disposal of leaked material. That keep away outer garment approach that is relation and isolate danger area and prohibit going out for a visit.

When leak, that remove being adsorbed by sand, clay, adsorbent etc.

SECTION 7. HANDLING AND STORAGE

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

Do not heat above 50℃

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation System : A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Respiratory Protection : A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Eye Protection : Use face shield, goggled or safety glasses.

Protective Gloves : Use solvent resistant gloves for brushing and spraying.

Other Protective Clothing and Equipment : Lab coat, eye wash, and safety shower.

Hygienic Work Practices : Wash hands with soap and water after use and/or before breaks, lunch and at the end of work periods. Remove contaminates clothing and launder before reuse.

Airborne Exposure Limits : (Aromatic solvent) 200 mg/m^3 ACGIH TWA

(Diacetone alcohol) TWA : 50ppm, 240mg/m^3

(Liquified petroleum gas) 1000 ppm (1800 mg/m^3) OSHA TWA

1000 ppm ACGIH TWA

SECTION 9. PHYSICAL / CHEMICAL CHARACTERISTICS

Appearance : Red oil liquid.

Odor : Solvent odor

Ph : No information found

Solubility in Water : Insoluble

Boiling Point : No information found

Melting Point : No information found

Vapor Pressure(mmHg) : No information found

Specific Gravity (H_2O = 1) : 0.90 ± 0.05

Vapor Density (Air =1) : No information found

Evaporation Rate (Ether=1) : No information found

SECTION 10. STABILITY AND REACTIVITY

STABILITY : Stable under ordinary conditions of use and storage

Conditions to Avoid : Heat, flame, ignition sources, light, moisture, incompatibles

Incompatability (Materials to Avoid) : Open flames, welding arcs, nitrogen tetroxide, oxygen, liquid oxygen, sodium, sodium hydroxide, and sodium-potassium alloy, strong alkalis, oxidizers, aluminum and other reactive metals.

Hazardous Decomposition Products : Carbon oxide

Hazardous Polymerization: Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Ingestion : Oral rat LD50 : 2520mg/kg (Diacetone alcohol)

Oral rat LD50 : 2520mg/kg (Liquified petroleum gas)

Skin : Skin rabbit LD50 : >2ml/kg (Aromatic solvent)

Skin rabbit LD50 : 13500mg/kg (Diacetone alcohol)

Inhalation : Inhalation rat LD50 : >590mg/m^3/4hr (Aromatic solvent)

Other data : No information found

SECTION 12. ECOLOGICAL INFORMATION

Biodegradation : No information found

Fish Toxicity : No information found

Activated sludge respiration inhibition : No information found

Algal growth inhibition : No information found

SECTION 13. DISPOSAL CONSIDERATION

Recommendation : Must not be disposed together with household garbage. Do not allow product to reach sewage system. Disposal must made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

Aerosol Class 2 UN No. 1950

SECTION 15. REGULATORY INFORMATION

Follow all regulation in your country

SECTION 16. PREPARATION DATA OF MSDS

This information has been faithfully prepared on the basis of various knowledge and information and is not to guarantee the quality of this product. Also, this information can be changed without prior notice in accordance with introduction of new knowledge and test results, etc. For inquiries, please contact us or the place of product purchase