MATERIAL SAFETY DATA SHEET

TX-85 Soil Stabilizer & Strengthener

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Company Identification:

PROBASE MANUFACTURING SDN BHD

(Company No.: 498742-K)

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1.2 Trade Name: Probase Soil Stabilizer **1.3 Chemical Family:** Silicate Compound

2. HAZARDS IDENTIFICATION

2.1 EMERGENCY OVERVIEW:

Color: White **Physical State:** Liquid

Appearance:Clear to opaqueOdor:Odorless to slight odor

2.2 POTENTIAL HEALTH EFFECTS:

Inhalation: May cause severe irritation of the respiratory tract with coughing, choking, pain and possibly burns of the mucous membranes. In some cases, pulmonary edema and/or pneumonia may develop, either immediately or more often within 72 hours. The symptoms may include tightness in the chest, dyspnea, frothy sputum, cyanosis, and dizziness. Physical findings may include moist rales, low blood pressure and high pulse pressure. Moist rales are a sound heard over fluid in the bronchial tubes.

Skin contact: Direct contact may cause irritation.

Eye contact: Direct contact may cause severe irritation, pain and burns, possibly severe, and permanent damage including blindness. The full extent of the injury may not be immediately apparent.

Ingestion: May cause immediate pain and severe burns of the esophagus and gastrointestinal tract with vomiting, nausea, and diarrhea.

Interaction with Other Chemicals Which Enhance Toxicity: None known

Medical Conditions Aggravated by Exposure: Respiratory disorders, Skin disorders

See Section 11: TOXICOLOGICAL INFORMATION

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component Percentage

Silicate Compound 50 – 60% PROPRIETARY
Chemical additive >5% PROPRIETARY
Water 35 – 45% 7732-18-5

4. FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. If respiration or pulse has stopped, have a trained person administer Basic Life Support (Cardio-Pulmonary Resuscitation and/or Automatic External Defibrillator) and CALL FOR EMERGENCY SERVICES IMMEDIATELY.

SKIN CONTACT: Immediately flush contaminated areas with water. Remove contaminated clothing, jewelry, and shoes immediately. Wash contaminated areas with soap and water. Thoroughly clean and dry contaminated clothing and shoes before reuse. GET MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT: Immediately flush eyes with a directed stream of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissues. Washing eyes within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION: Never give anything by mouth to an unconscious or convulsive person. If swallowed, do not induce vomiting. Give large amounts of water. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops. GET MEDICAL ATTENTION IMMEDIATELY.

Notes to Physician: The absence of visible signs or symptoms of burns does NOT reliably exclude the presence of actual tissue damage.

5. FIRE-FIGHTING MEASURES

Fire Hazard: Negligible fire hazard.

Fire Fighting: Move container from fire area if it can be done without risk. Avoid inhalation of material or

combustion byproducts. Stay upwind and keep out of low areas.

Sensitivity to Mechanical Impact: Not sensitive. **Sensitivity to Static Discharge:** Not sensitive.

Flash point: Not flammable

6. ACCIDENTAL RELEASE MEASURES

Occupational Release:

Flush spill area with water, if appropriate. Dries to form glass film which can easily cut skin. Wear appropriate personal protective equipment recommended in Section 8 of the SDS. Liquid material may be removed with a vacuum truck. Wet material is slippery under foot. Shovel dried residue into suitable container. Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies. This material is alkaline and may raise the pH of surface waters with low buffering capacity.

7. HANDLING AND STORAGE

Storage Conditions: Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas may be generated. Keep separated from incompatible substances (see Section 10 of the Safety Data Sheet).

Handling Procedures: Do not get in eyes or on clothing. Avoid breathing aerosol mist. Wash thoroughly after handling. Use care when handling hot material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Regulatory Exposure limit(s): No occupational exposure limits have been established at this time

8.1 ENGINEERING CONTROLS: Provide local exhaust ventilation where dust or mist may be generated.

8.2 PERSONAL PROTECTIVE EQUIPMENT:

Eye Protection: Wear safety glasses with side-shields. If eye contact is likely, wear chemical resistant safety goggles. Wear chemical safety goggles with a faceshield to protect against eye and skin contact when appropriate. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin and Body Protection: Wear protective clothing to minimize skin contact. Wear appropriate heat resistant clothing when potential exists for contact with materials above 120 F (49 C).

Hand Protection: Wear appropriate chemical resistant gloves. Use gloves that are cut resistant if handling dryglass material.

Respiratory Protection: A NIOSH approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Appearance: Clear to opaque Color: Colorless

Odor:

Molecular Formula:
PROPRIETARY

Flash point:
Not flammable

Boiling Point/Range:
101-102 C

Freezing Point/Range:
-1 C

Specific Gravity (water=1):
1.30 ~1.40

Water Solubility:
100%

pH: 11~ 12 **Volatility:** >46%

10. STABILITY AND REACTIVITY

Reactivity/ Stability:

Stable at normal temperatures and pressures. Prolonged contact with incompatible metals may produce flammable hydrogen gas.

Conditions to Avoid:

Contact with acids will cause gelling and evolution of heat.

Incompatibilities/Materials to Avoid:

Acids, Prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys.

Hazardous Decomposition Products: None known

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

TOXICITY: Solutions are alkaline. Exposure to alkaline solutions may result in irritation to severe burns depending on the concentration and duration of the exposure. Sodium silicate is a type of amorphous silica and does not cause pulmonary silicosis.

CARCINOGENICITY: This product is not classified as a carcinogen by NTP, IARC or OSHA.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

PERSISTENCE: This material is believed to persist in the environment. **BIOCONCENTRATION:** This material is not expected to bioconcentrate in organisms.

13. DISPOSAL CONSIDERATIONS

Reuse or recycle if possible. Dispose in accordance with all applicable regulations. May be subject to disposal regulations: U.S. EPA 40 CFR 261. Hazardous Waste Number(s): D002.

14. TRANSPORT INFORMATION

U.S.DOT: Bulk and Non-bulk proper shipping names are not regulated

CANADIAN TRANSPORTATION OF DANGEROUS GOODS: Not regulated.

15. REGULATORY INFORMATION

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not regulated. EPCRA EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30): Not regulated EPCRA SECTION 313 (40 CFR 372.65): Not regulated. OSHA PROCESS SAFETY (PSM) (29 CFR 1910.119): Not regulated

16. OTHER INFORMATION

IMPORTANT:

The information presented herein, while not guaranteed, was prepared by technical personnel and is true and accurate to the best of our knowledge. NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTY OR GUARANTY OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, SAFETY, SUITABILITY, STABILITY OR OTHERWISE.