



MATERIAL SAFETY DATA SHEET

MSDS # FC N^R Sodium Silicate Solution **Effective Date: March 3, 2005**

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: N^R Sodium Silicate Solution
 Product Description: A 3.22 weight ratio sodium silicate, 37.5% solution in water
 Product Use: Adhesive, binder, pulp & paper, water treatment, catalysts and gels
 Trade Names: FC N^R Sodium Silicate Solution
 Manufacturer: National Silicates, distributed by Canada Colours Limited
 Supplier: FibreCast Incorporated
 3264 Mainway
 Burlington, Ontario, Canada L7M 1A7 905-319-1080; Fax 905-319-7611
 Customer Support: sales@fibrecast.com

2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS	CAS #	% BY WEIGHT
Water	7732-18-5	62.5
Sodium silicate	1344-28-1	37.5

3. LABEL INFORMATION



Symbol: Toxic – Class D, Division 2B – other toxic effects

Risk phrases: This product is a clear to hazy, colourless, odourless, thick liquid with a relatively high pH at 11.3. It causes eye, skin, and digestive tract irritation. High pH is harmful to aquatic life. Noncombustible. Spills are slippery. Reacts with acids, ammonium salts, reactive metals and some organics. No known chronic hazards. Not listed as a carcinogen. Dries to form glass film, which can cut skin. Can etch glass if not promptly removed.

Precautionary Measures: Wear NIOSH approved respirator where spray mist occurs. Wear suitable gloves and long sleeves to protect skin. Use chemical goggles. Use with adequate ventilation. Wash all exposed areas gently with soap and water after contact.

First Aid Procedures: If contact with eyes, flush with water for 15 minutes. If contact with skin, wash gently with soap and water, if irritation persists, consult physician. If breathing difficulties develop, remove from exposure and call physician immediately.

Refer to Material Safety Data Sheet for Further Information.

Supplier: Fibrecast Inc., 3264 Mainway, Burlington ON, Canada, phone 905-319-1080; Fax 905-319-7611

4. HAZARDS IDENTIFICATION

Emergency Overview: This product is a clear to hazy, colourless, odourless, thick liquid with a relatively high pH. This product is a clear to hazy, colourless, odourless, thick liquid with a relatively high pH at 11.3. It causes eye, skin, and digestive tract irritation. High pH is harmful to aquatic life. Noncombustible. Spills are slippery. Reacts with acids, ammonium salts, reactive metals and some organics. No known chronic hazards. Not listed as a carcinogen. Dries to form glass film which can cut skin. Can etch glass if not promptly removed.

Respiratory Tract (nose and throat) Irritation: Spray mist if inhaled in sufficient quantity, may cause temporary, mild mechanical irritation to respiratory tract.

Eye Irritation: Cause irritation.

Skin Irritation: May cause temporary, mild mechanical irritation. Exposure may also result in inflammation, rash or itching.

Gastrointestinal Irritation: Unlikely route of exposure. If ingested, may cause irritation to mouth, esophagus, and stomach.

5. First Aid Measures

Respiratory Tract (nose & throat) Irritation: If respiratory tract irritation develops, move the person to a mist free location. Get medical attention if the irritation continues.

Eye Irritation: If eyes become irritated, flush immediately with large amounts of lukewarm water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Do not rub eyes. Get medical attention if irritation persists.

Skin Irritation: If skin becomes irritated, remove soiled clothing. Do not rub or scratch exposed skin. Wash the area of contact thoroughly with soap and water. Using a skin cream or lotion after washing may be helpful.

Gastrointestinal Irritation: If gastrointestinal tract irritation develops, move the person to a mist free environment. Do not induce vomiting.

6. FIRE FIGHTING MEASURES

NFPA Unusual Hazards: None

Flammable Properties: None

Flash Point: None

Extinguishing Media: Use extinguishing media suitable for type of surrounding fire.

7. ACCIDENTAL RELEASE MEASURES

Personal Protection: Wear chemical gloves and clothing protecting skin from contact. Use chemical goggles and rubber boots. Avoid creating unnecessary airborne mist.

Environmental Hazards: Sinks and mixes with water. With pH at 11.3, material is harmful to aquatic life.

Spill: Mop up and neutralize liquid. Dispose in accordance with local, provincial and federal regulations

8. HANDLING AND STORAGE

Storage: Store in original container in a dry area. Keep container closed when not in use. Do not store in aluminum, copper, brass, zinc or galvanized containers.

Handling: Avoid contact with eyes, skin and clothing. Avoid breathing mist. Keep container closed when not in use. Promptly clean up spills.

9. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls - Use with adequate ventilation

Personal Protection Equipment – Use respiratory protection where spray mist occurs. Wear body covering work clothes to protect skin. Use gloves and chemical goggles.

10. PHYSICAL AND CHEMICAL PROPERTIES

Odour and Appearance:	Clear to hazy white thick liquid, odourless to musty odour.
Chemical Family:	Vitreous Aluminosilicate Fibres
pH:	11.3
Specific Gravity:	1.39 g/cm ³ at 20 deg C
Solubility in water:	Miscible

11. STABILITY AND REACTIVITY

Chemical Stability:	Stable under conditions of normal use.
Materials to Avoid	Gels and generates heat when mixed with acid. May react with ammonia salts resulting in the evolution of ammonia gas. Flammable hydrogen gas may be produced on contact with aluminum, tin, lead and zinc.
Conditions to Avoid	None.
Hazardous Decomposition Products:	Hydrogen

12. TOXICOLOGICAL INFORMATION

Acute Data: When tested for primary eye irritation, material produced corneal, iridal and conjunctival irritation. eye irritation score declined from 19.1 after 1 day to 4.0 after 14 days. When tested for skin irritation potential, it produced irritation with index of 3 to abraded skin and 0 to intact skin. Acute oral toxicity has not been tested.

13. ECOLOGICAL INFORMATION

Ecotoxicity:	The following is based on 100% sodium silicate as a solid. A 96 hour median tolerance for fish of 2320 ppm; 247ppm for water fleas; 632 ppm for snail eggs; 160 for amphipoda.
Environmental Fate:	This material is not persistent in aquatic systems, but its high pH when undiluted is acutely harmful to aquatic life
Physical:	Sinks and mixes with water. Only water will evaporate from this material

14. DISPOSAL CONSIDERATIONS

Disposal Method: Dispose in accordance with local, regional, state or provincial regulations.

15. TRANSPORTATION INFORMATION

Canadian Transportation of Dangerous Goods Regulation: Hazard Class & PIN: Non Regulated
Not classified as dangerous goods under ADR (road), RID (train), or IMDG (ship).

16. REGULATIONS

Canadian Workplace Hazardous Materials Information System (WHMIS) – Sodium silicate solution is classified as Class D2B – Materials Causing other Toxic Effects.

17. PREPARATION INFORMATION

This MSDS was prepared March 3, 2005 by G.E.Menzies P.Eng. ROH. For more information, phone 905-319-1080 or visit our FibreCast website.

DISCLAIMER

The information presented herein is presented in good faith and believed to be accurate as of the effective date of this Material Safety Data Sheet. Occupational exposure limits are under constant review and may be changed at any time. Employers may use this MSDS to supplement other information gathered by them in their efforts to assure the health and safety of their employees and the proper use of this produce. This summary of the relevant data reflects professional judgment. Employers should note that information perceived to be less relevant has not been included in this MSDS. Therefore, given the summary nature of this document, FibreCast Inc. does not extend any warranty (expressed or implied), assume any responsibility or make any representation regarding the completeness of this information or its suitability for the purposes envisioned by the user.