



# Safety Data Sheet

SDS No. 940

## Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** Forton® Hardener (Ammonium Chloride); Matrix®-G C-3 Hardener

**General Use:** Concrete Additive

**Manufacturer:** Smooth-On, Inc.,  
5600 Lower Macungie Rd., Macungie, PA 18062  
Phone (610) 252-5800, FAX (610) 252-6200

**Emergency Contact:** Chem-Tel  
Domestic: 800-255-3924 International: 813-248-0585

## Section 2 - Hazards Identification

### Classification of the substance or mixture

Acute Toxicity, oral – Category 4  
Eye Irritant – Category 2A

### GHS Label elements, including precautionary statements



**Pictogram(s):**  
**Signal Word:** Warning

Health Hazards:	H302	Harmful if swallowed
	H319	Causes serious eye irritation
Prevention Precautions:	P264	Wash skin thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
Response Precautions:	P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P330	Rinse mouth.
	P337 + P313	If eye irritation persists: Get medical advice/attention.
Disposal Precautions:	P501	Dispose of contents/container according to local, state and federal laws.

**Hazards not otherwise classified (HNOC) or not covered by GHS – none known**

### Section 3 - Composition / Information on Ingredients

The following ingredients are hazardous according to OSHA criteria.

CAS	Component	Concentration
12125-02-9	Ammonium chloride	>99.5%

### Section 4 - First Aid Measures

**Inhalation:** Remove source(s) of contamination and move victim to fresh air. If breathing has stopped, give artificial respiration, then oxygen if needed. Contact physician immediately.

**Eye Contact:** Flush eyes with plenty of water. If irritation persists, seek medical attention.

**Skin Contact:** In case of skin contact, wash thoroughly with soap and water.

**Ingestion:** Do not induce vomiting unless instructed by a physician. Never give anything by mouth to an unconscious person.

**After first aid, get appropriate in-plant, paramedic, or community medical support.**

### Section 5 - Fire-Fighting Measures

**Extinguishing Media:** Water Fog, Dry Chemical, and Carbon Dioxide Foam

**Unusual Fire or Explosion Hazards:** None known.

**Fire-Fighting Instructions:** Use water spray to cool fire-exposed surfaces and to protect personnel. Shut off "fuel" to fire. If a leak or spill has not ignited, use water spray to disperse the vapors. Either allow fire to burn under controlled conditions or extinguish with foam or dry chemical. Try to cover liquid spills with foam.

**Further information:** Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure demand or positive-pressure mode.

### Section 6 - Accidental Release Measures

**Spill /Leak procedures:** Only properly protected personnel should remain in the spill area; dike and contain spill; absorb or scrape up excess into suitable container for disposal; flush residues and liquid to holding are for neutralization before discharge. Stop or reduce discharge if it can be done safely.

**Environmental precautions:** Avoid release to the environment.

### Section 7 - Handling and Storage

**Handling Precautions:** Use good general housekeeping procedures. Ensure good ventilation/exhaust at the workplace. Avoid dust generation. Avoid contact with skin and eyes. Do not allow product to enter sewage system or water bodies. Wash hands after use.

**Storage Requirements:** Keep container(s) tightly closed and properly labeled. Store in cool, dry, well ventilated place away from heat, direct sunlight, strong oxidizers and any incompatibles. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty containers retain residue and may be dangerous. Avoid water contamination.

## Section 8 - Exposure Controls / Personal Protection

### Ammonium chloride:

USA ACGIH	ACGIH TWA	10 mg/m <sup>3</sup>
USA ACGIH	ACGIH STEL	20 mg/m <sup>3</sup>

**Respiratory Protection:** Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits. Should a respirator be needed, follow OSHA respirator regulations 29 CFR 1910.134 and European Standards EN 141, 143 and 371; wear an MSHA/NIOSH or European Standards EN 141, 143 and 371 approved respirators.

**Hand Protection:** Wear any liquid-tight gloves such as butyl rubber, neoprene or PVC to minimize skin contact

**Eye Protection:** Safety glasses with side shields per OSHA eye- and face-protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

**Other Protective Clothing/Equipment:** Wear suitable protective clothing or equipment to minimize skin contact. Provide eye bath and safety shower.

**Comments:** Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. Wash thoroughly after handling.

## Section 9 - Physical and Chemical Properties

**Appearance :** granular nuggets  
**Odor/Threshold:** odorless  
**pH:** 4.0 – 6.0  
**Melting Point/Freezing Point:** 642 °F  
**Low/High Boiling Point:** N.A.  
**Flash Point:** Not available  
**Evaporation Rate:** Not available  
**Flammability:** f.p. at or above 200 °F  
**UEL/LEL:** Not available

**Vapor Pressure:** Not available  
**Vapor Density (Air=1):** Not available  
**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** 1.07  
**Water Solubility:** 100%  
**Partition coefficient:** Not available  
**Auto-ignition temperature:** Not available  
**Decomposition temperature:** 968 °F  
**Viscosity:** Not available  
**% Volatile:** Nil

## Section 10 - Stability and Reactivity

**Stability:** These products are stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization cannot occur.

**Chemical Incompatibilities:** aluminum, zinc, tin and their alloys.

**Hazardous Decomposition Products:** Copper may produce nitrogen oxide if reacted with nitric acid and/or copper fumes.

## Section 11- Toxicological Information

**Skin Corrosion/Irritation:** no data

**Serious Eye Damage/Irritation:** Causes serious eye irritation (pH 4.0 – 6.0)

**Respiratory/Skin Sensitization:** no data

**Germ Cell Mutagenicity:** no data

**Carcinogenicity:** no data  
**Reproductive Toxicity:** no data  
**Specific Target Organ Toxicity – Single Exposure:** no data  
**Specific Target Organ Toxicity – Repeated Exposure:** no data  
**Aspiration Hazard:** no data  
**Acute Toxicity:**  
     LD50, oral: 1410 mg/kg (rat)  
**Chronic Exposure:** no data  
**Potential Health Effects – Miscellaneous:** no data

**Section 12 - Ecological Information**

**Toxicity:**  
     LC50 *Cyprinus carpio* – 209 mg/l (96 h, static)  
**Persistence and Degradability:** no data  
**Bioaccumulative Potential:** no data  
**Mobility in Soil:** no data  
**Other Adverse Effects:** no data

**Section 13 - Disposal Considerations**

**Disposal:** Under RCRA it is the responsibility of the user of the product to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore to not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

**Section 14 - Transport Information**

DOT	IATA	IMDG
Not Regulated	Not Regulated	Not Regulated

**Section 15 - Regulatory Information**

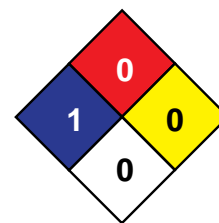
**TSCA Inventory Status (40 CFR710):** All components of this formulation are listed in the TSCA Inventory.

California Proposition 65: This product does not intentionally contain any chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

State Right-To-Know Lists: ammonium chloride is listed on the following state RTK lists – MA, MN, NJ and PA

## 16 - Other Information

HMIS	
H	1
F	0
R	0



NFPA

SDS Version: 1

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**Glossary:** ACGIH-American Conference of Governmental Industrial Hygienists; ANSI-American National Standards Institute; Canadian TDG-Canadian Transportation of Dangerous Goods; CAS-Chemical Abstract Service; Chemtrec-Chemical Transportation Emergency Center (US); CHIP-Chemical Hazard Information and Packaging; DSL-Domestic Substances List; EC-Equivalent Concentration; EH40 (UK)-HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA-Emergency Planning and Community Right-To-Know Act; ESL-Effects screening levels; GHS-Globally Harmonized System of Classification and Labelling of Chemicals; HMIS-Hazardous Material Information Service; IATA-International Air Transport Association; IMDG-International Maritime Dangerous Goods Code; LC-Lethal Concentration; LD-Lethal Dose; LEL-Lower Explosion Level; NFPA-National Fire Protection Association; OEL-Occupational Exposure Limit; OSHA-Occupational Safety and Health Administration, US Dept. of Labor; PEL-Permissible Exposure Limit; SARA (Title III)-Superfund Amendments and Reauthorization Act; SARA 313-Superfund Amendments and Reauthorization Act, Section 313; SCBA-Self-Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ-Texas Commission on Environmental Quality; TLV-Threshold Limit Value; TSCA-Toxic Substances Control Act Public Law 94-469; TWA-Time Weighted Value; UEL-Upper Explosion Level; US DOT-US Department of Transportation; WHMIS-Workplace Hazardous Materials Information System.

**Disclaimer:** The information contained in this Safety Data Sheet (SDS) is considered accurate as of the version date. However, no warranty is expressed or implied regarding the accuracy of the data. Since the use of this product is not within the control of Smooth-On Inc., it is the user's obligation to determine the suitability of the product for its intended application and assumes all risk and liability for its safe use.

This SDS is prepared to comply with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) as prescribed by the United States (US) Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and European Union Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 (REACH).

Classifications of the chemical in accordance with 29 CFR 1910.1200, signal word, hazard and precautionary statement(s), symbol(s) and other information are based on listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), WHMIS and EC No 1907/2006 and are considered trade secrets under US Federal Law (29 CFR and 40 CFR), Canadian Law (Health Canada Legislation), and European Union Directives.