



HAZARD RATING
4=EXTREME
3=HIGH
2=MODERATE
1=SLIGHT
0=INSIGNIFICANT

| | |
|---------------------|----------|
| HEALTH | 3 |
| FLAMMABILITY | 0 |
| REACTIVITY | 0 |

SAFETY DATA SHEET
VEXCON NO. OP137
STARSEAL MASONRY & RESTORATION CLEANER

SECTION I - GENERAL INFORMATION

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|---|---------------------------------------|
| PRODUCT IDENTIFICATION: | |
| STARSEAL MASONRY & RESTORATION CLEANER | |
| VOC CONTENT: | 0 GRAMS/LITER OR 0 #/GAL |
| CATEGORY: | NOT REQUIRED |
| COMMON NAME: | SULFAMIC ACID SOLUTION |
| MANUFACTURER: | VEXCON CHEMICALS, INC |
| ADDRESS | 7240 STATE RD, PHILADELPHIA, PA 19135 |
| EMERGENCY NO: | 800.858.2828 (PolySat Inc) |
| TELEPHONE NO: | 215.332.7709 (Vexcon) |
| CHEMTREC NO: | 800.424.9300 (CCN# 23822) |
| PREPARED: | OCTOBER 2003 |
| UPDATED: | MAY 2014 |
| PREPARED BY: | DARRY F. MANUEL , PRESIDENT |

SECTION II - HAZARD IDENTIFICATION

DOT SHIPPING NAME:

UN ID NUMBER / SHIPPING NAME / HAZARD CLASS / PKG GROUP
IN CONTAINERS LESS THAN 119 GALS:

UN 3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (SULFAMIC ACID SOLUTION), 8, III

IN CONTAINERS GREATER THAN 119 GALS:

UN 3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (SULFAMIC ACID SOLUTION), 8, III

FOR LIMITED QUANTITY AIR & OCEAN SHIPMENT:

UN 3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (SULFAMIC ACID SOLUTION), 8, III

HEALTH AND SAFETY: CORROSIVE LIQUID MAY CAUSE DAMAGE TO THE SKIN AND EYES. MAY CAUSE RESPIRATORY TRACT IRRITATION. USE ONLY WITH ADEQUATE VENTILATION: IF SWALLOWED, DO NOT INDUCE VOMITING: USE OF SOLVENT RESISTANT GLOVES, GOGGLES AND OTHER PROTECTIVE EQUIPMENT IS ADVISED WHEN HANDLING THIS PRODUCT: ASPIRATION OF MATERIAL INTO THE LUNGS CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL: USE OF RESPIRATORS IS ADVISED WHEN USING PRODUCT IN CONFINED AREA.



SECTION III HAZARDOUS INGREDIENTS

| MATERIAL OR COMPONENTS | CAS NO. | % | HAZARD DATA | UN# |
|-------------------------------------|-----------|--------|-------------|------|
| AMIDO SULFONIC ACID / SULFAMIC ACID | 5329-14-6 | 10-20% | NONE LISTED | 2967 |
| WATER | 7732-18-5 | 80-90% | ND | NONE |

SECTION IV FIRST AID MEASURES

HEALTH HAZARD DATA HAZARD CLASSIFICATION BASIS FOR CLASSIFICATION SOURCE

ROUTES OF EXPOSURE:

| | |
|---------------------------------|---|
| EMERGENCY OVERVIEW | ODORLESS, CLEAR LIQUID THAT IS CORROSIVE. CAN CAUSE BURNS, AND HARMFUL IF SWALLOWED OR INHALED |
| INHALATION: | WILL CAUSE SEVERE IRRITATION TO THE UPPER RESPIRATORY TRACT |
| SKIN CONTACT: | CAN CAUSE SEVERE IRRITATION |
| SKIN ABSORPTION: | CAN CAUSE SEVERE IRRITATION |
| EYE CONTACT: | CAN CAUSE SEVERE IRRITATION |
| INGESTION / INHALATION: | CAN CAUSE SEVERE BURNS TO THE MOUTH, THROAT AND STOMACH |
| EFFECTS OF OVEREXPOSURE: | CAUSES BURNS TO EYES THAT MAY CAUSE PERMANENT DAMAGE. CAUSES BURNS TO SKIN. BREATHING OF MIST CAN CAUSE IRRITATION TO NASAL AND RESPIRATORY PASSAGES. INGESTION CAN CAUSE DAMAGE TO MUCOUS MEMBRANES. |
| ACUTE OVEREXPOSURE: | FATALITIES CAN OCCUR FROM INGESTION |

EMERGENCY AND FIRST AID PROCEDURES:

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|--------------------|---|
| EYES: | FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, TAKE TO A PHYSICIAN FOR TREATMENT. IF SWALLOWED: OBTAIN MEDICAL ATTENTION IMMEDIATELY. |
| SKIN: | THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. |
| INHALATION: | REMOVE TO FRESH AIR, GIVE OXYGEN IF BREATHING IS DIFFICULT. |

SECTION V FIREFIGHTING MEASURES

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| EXTINGUISHING MEDIA: | NON FLAMMABLE. EXTINGUISH SOURCE OF FIRE WITH REGULAR FOAM, CO2, DRY CHEMICAL, WATER FOG. CAN DECOMPOSE ABOVE 209°C FORMING TOXIC FUMES. |
| UNUSUAL FIRE AND EXPLOSION HAZARD: | REACTS WITH MOST METALS TO RELEASE HYDROGEN GAS; WHICH CAN FORM EXPLOSIVE MIXTURES WITH AIR. RISK INCREASES IN POORLY VENTILATED SPACES. EXTINGUISH ALL NEARBY SOURCES OF IGNITION. |
| SPECIAL FIRE FIGHTING PROCEDURES: | WEAR NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACE PIECE OPERATED IN PRESSURE DEMAND OR OTHER POSITIVE PRESSURE MODE, AND FULL BODY PROTECTIVE CLOTHING WHEN FIGHTING FIRES. WATER SPRAY MAY BE USED TO COOL CLOSED CONTAINERS. |

SECTION VI ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: EVACUATE IMMEDIATE AREA WHERE CONCENTRATED FUMES ARE PRESENT. CLEAN UP PERSONNEL MUST WEAR PROPER PROTECTIVE EQUIPMENT. COMPLETELY CONTAIN SPILLED MATERIAL WITH DIKES, ETC., AND PREVENT RUNOFF INTO GROUND AND SURFACE WATERS OR INTO SEWERS. DILUTE WITH WATER AND NEUTRALIZE WITH SODA ASH OR DILUTE CAUSTIC SODA. NEUTRALIZED MATERIAL, BOTH LIQUID AND SOLID, SHOULD BE RECOVERED FOR PROPER DISPOSAL. PROVIDE ADEQUATE VENTILATION.

SECTION VII HANDLING AND STORAGE

WORK PRACTICES: PROPER WORK PRACTICES AND PLANNING SHOULD BE UTILIZED TO AVOID CONTACT WITH WORKERS, PASSERSBY, AND NON-MASONRY SURFACES. DO NOT ATOMIZE DURING APPLICATION. BEWARE OF WIND DRIFT. PRE-RINSING WITH LOW-PRESSURE WATER IMMEDIATELY BEFORE PRESSURE WASHING EFFECTIVELY REDUCES PRODUCT CONTENT IN PRESSURE WASHING RESIDUES. SEE THE PRODUCT DATA SHEET AND LABEL FOR SPECIFIC PRECAUTIONS TO BE TAKEN DURING USE. SMOKING, EATING AND DRINKING SHOULD BE PROHIBITED DURING THE USE OF THIS PRODUCT. WASH HANDS BEFORE BREAKS AND AT THE END OF A SHIFT.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: USE PROPER SAFETY EQUIPMENT (SEE VIII) WHEN HANDLING. STORE IN A COOL, WELL-VENTILATED AREA. SEPARATE FROM OXIDIZING AGENTS, REDUCING AGENTS, ALKALIS, CYANIDES, SULFIDES, ETC. (SEE SECTION VI). DILUTION, STORAGE AND APPLICATION EQUIPMENT SHOULD BE HDPE, POLYPROPYLENE OR OTHER ACID-RESISTANT MATERIALS. ADDITION OF ACIDIC CLEANER TO WATER RELEASES HEAT WHICH CAN RESULT IN VIOLENT BOILING ANDN SPATTERING. **ALWAYS ADD CLEANER TO WATER SLOWLY AND IN SMALL AMOUNTS. NEVER USE HOT WATER. NEVER ADD WATER TO ACIDIC CLEANERS.** CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED, SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID). ALL HAZARD PRECAUTIONS GIVEN IN THIS DATA SHEET MUST BE OBSERVED. STORE AT AMBIENT TEMPERATURE IN CLOSED CONTAINER TO PREVENT EVAPORATION. MAY BE STORED IN TEMPERATURES FROM 40°F / 4°C TO 140°F / 60°C WITHOUT DETERIORATION.

OTHER PRECAUTIONS: "DO NOT TAKE INTERNALLY." "AVOID PROLONGED SKIN CONTACT." PRODUCT IS A STRONG CLEANER AND DEGREASER IN AN ACIDIC SOLUTION. THE PRODUCT SHOULD BE HANDLED WITH CARE AND USED ONLY FOR ITS INTENDED PURPOSE. **FOR INDUSTRIAL USE ONLY.**

SECTION VIII EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION REQUIREMENTS: PROVIDE SUFFICIENT EXPLOSION-PROOF GENERAL AND/OR LOCAL EXHAUST VENTILATION TO MAINTAIN EXPOSURE BELOW THE TLV

RESPIRATORY (SPECIFY IN DETAIL): SULFAMIC ACID HAS A VERY LOW VAPOR PRESSURE AT ROOM TEMPERATURE AND IS NOT EXPECTED TO PRESENT A SIGNIFICANT INHALATION HAZARD UNDER AMBIENT CONDITIONS. FOR VAPOR OR MIST CONCENTRATIONS; WHICH EXCEED OR ARE LIKELY TO EXCEED THRESHOLD LIMIT VALUE (TLV) FOR SULFAMIC ACID, A NIOSH/MSHA APPROVED SUPPLIED AIR RESPIRATOR IN THE CONTINUOUS FEED MODE SHOULD BE UTILIZED. A NIOSH APPROVED DUST/MIST RESPIRATOR MAY BE USED FOR NUISANCE LEVEL MISTS. FOLLOW ALL APPLICABLE RESPIRATOR USE STANDARDS AND REGULATIONS.

EYES: CHEMICAL SPLASH GOGGLES AND/OR FULL-FACE SHIELD (8-INCH MINIMUM) IN COMPLIANCE WITH OSHA REGULATIONS. DO NOT WEAR CONTACT LENSES BECAUSE THEY MAY CONTRIBUTE TO THE SEVERITY OF AN EYE INJURY.

GLOVES: RUBBER TYPE, NEOPRENE OR PVC WITH ACCEPTABLE ACID RESISTANCE
OTHER CLOTHING AND EQUIPMENT: ACID-RESISTANT RUBBER BOOTS, HEADGEAR AS NEEDED DEPENDING ON APPLICATION METHODS AND JOB-SITE CONDITIONS. EYEWASH AND SAFETY SHOWER SHOULD BE READILY ACCESSIBLE.

SECTION IX PHYSICAL / CHEMICAL CHARACTERISTICS

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| BOILING POINT: (760mmHg) 215°F / 101°C | MELTING POINT: 0°C / 32°F (WATER) |
| VAPOR PRESSURE: 17.5 mmHg@68°F/20°C (WATER) | VAPOR DENSITY (AIR=1): 1 = AIR |
| SOLUBILITY IN H2O % BY WT: 100% | % VOLATILES BY VOL: 85% |
| EVAPORATION RATE (BuAc=1): SLOW 0.3 (WATER) | SPECIFIC GRAVITY (H2O=1) 1.152 |
| pH (AS IS) 1-2 | pH (1% SOLN) N/A |
| APPEARANCE AND ODOR: CLEAR LIQUID WITH LIGHT ODOR | |
| FLASH POINT: (TEST METHOD) | N/A WILL NOT BURN |
| AUTOIGNITION TEMP: | N/A |
| FLAMMABLE LIMITS IN AIR, % BY VOL: | LOWER: N/A UPPER: N/A |

SECTION X STABILITY AND REACTIVITY

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| CONDITIONS CONTRIBUTING TO INSTABILITY: | THIS PRODUCT IS STABLE. |
| INCOMPATIBILITY: | (MATERIALS TO AVOID). METALS, OXIDIZING AGENTS, REDUCING AGENTS, SULFIDES, CYANIDES, SULFITES, AND ALKALIS. |
| HAZARDOUS DECOMPOSITION PRODUCTS: | SULFUR TRIOXIDE, SULFUR DIOXIDE, NITROGEN AND AMMONIA. |
| CONDITIONS TO AVOID | CONTACT WITH STRONG BASES (ALKALIS), CAN CAUSE VIOLENT REACTION GENERATING LARGE AMOUNTS OF HEAT. |
| CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION: | N/A WILL NOT OCCUR |

SECTION XI TOXICOLOGICAL INFORMATION

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|----------------------|------------|--|
| ACUTE HAZARDS | EYE & SKIN | SEVERE BURNS TO SKING, DEFATTING, DERMATITIS |
| | | SEVERE BURNS TO EYES, REDNESS, TEARING, BLURRED VISION |
| | | SOLID CAN CAUSE SEVERE SKING & EYE BURNS. WASH THOROUGHLY AFTER HANDLING. |
| | INHALATION | VAPOR HARMFUL. SULFAMIC ACID IS A RESPIRATORY TRACT IRRITANT, AND INHALATION MAY CUSE NOW IRRITATION, SOR THROAT, COUGHING, AND CHEST TIGHTNESS AND POSSIBLY, ULCERATION AND PERFORATION OF THE NASAL SAPUM. INHALATION EXPOSURE TO HIGH LEVELS CAUSE PULMONARY EDEMA (BUILD OF FLUID IN THE LUNGS) WHICH COULD RESULT IN DEATH. |
| | SWALLOWING | HARMFUL OR FATAL IF |

| | | |
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| | | SWALLOWED, INGESTION CAN RESULT IN SEVERE GASTRIC DISTRESS WITH POSSIBLE CIRCULATORY COLLAPSE, KIDNEY FAILURE AND LIVER AND HEART DAMAGE. |
| <u>CHRONIC HAZARDS</u> | CANCER REPRODUCTIVE & OTHER CHRONIC HAZARDS | THIS PRODUCT HAS NO CARCINOGENS LISTED BY IARC, NTP, NIOSH, OSHA OR ACGIH AS OF THIS DATE, GREATER OR EQUAL TO 0.1% |
| | IRRITANCY OF PRODUCT | THIS PRODUCT IS IRRITATING TO CONTAMINATED TISSUE. |
| | SENSITIZATION TO THE PRODUCT | NO COMPONENT OF THIS PRODUCT IS KNOWN TO BE A SENSITIZER |
| | MUTAGENICITY | THIS PRODUCT IS NOT REPORTED TO PRODUCE MUTAGENIC EFFECTS IN HUMANS |
| | EXBRYOTOXICITY | THIS PRODUCT IS NOT REPORTED TO PRODUCE EMBRYOTIC EFFECTS IN HUMANS |
| | TERATOGENICITY | THIS PRODUCT IS NOT REPORTED TO PRODUCE TERATOGENIC EFFECTS IN HUMANS |
| | REPRODUCTIVE TOXICITY | THIS PRODUCT IS NOT REPORTED TO CAUSE REPRODUCTIVE EFFECTS IN HUMANS. |

A **MUTAGEN** IS A CHEMICAL WHICH CAUSES PERMANENT CHANGES TO GENETIC MATERIAL (DNA) SUCH THAT THE CHANGES WILL PROPAGATE THROUGH GENERATIONAL LINES.

AN **EMBRYOTOXIN** IS A CHEMICAL WHICH CAUSES DAMAGE TO A DEVELOPING EMBRYO (SUCH AS: WITHIN THE EIGHT WEEKS OF PREGNANCY IN HUMANS, BUT THE DAMAGE DOES NOT PROPAGATE ACROSS GENERATIONAL LINES.

A **TERATOGEN** IS A CHEMICAL WHICH CAUSES DAMAGE TO A DEVELOPING FETUS, BUT THE DAMAGE DOES NOT PROPAGATE ACROSS GENERATIONAL LINES.

A **REPRODUCTIVE TOXIN** IS ANY SUBSTANCE WHICH INTERFERES IN ANY WAY WITH THE REPRODUCTIVE PROCESS.

MAMMALIAN TOXICITY INFORMATION

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| | MILD IRRITATION EFFECTS (SKIN – RABBITS) | 500 mg/24 HOURS (ADULT) |
| | SEVERE IRRITATION EFFECTS (EYE- RABBIT) | 20 mg (ADULT) |
| | LD50 (ORAL) | 3160 mg/kg (RAT) |
| | LD50 (ORAL) | 1312 mg/kg (MOUSE) |
| | LD50 (ORAL) | 1050 mg/kg (GUINE Pig) |

SECTION XII ECOLOGICAL INFORMATION

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| <u>EFFECTS ON PLANTS AND ANIMALS</u> | THIS PRODUCT MAY BE HARMFUL OR FATAL TO PLANT AND ANIMAL LIFE IF RELEASED INTO THE ENVIRONMENT. REFER TO SECTION 11 (TOXICOLOGICAL INFORMATION) FOR FURTHER DATA ON THE EFFECTS ON THIS PRODUCT'S COMPONENTS ON TEST ANIMALS. |
| <u>EFFECT OF MATERIAL ON AQUATIC LIFE</u> | LC50: (PIMPHALES PROMELAS (FATHEAD MINNIE)): 58.8 – 84 mg/L (96 HOURS, FRESH WATER, 22°C) |
| <u>MOBILITY IN SOIL</u> | MOBILITY OF THIS MATERIAL HAS NOT BEEN DETERMINED. |
| <u>DEGRADABILITY</u> | THIS PRODUCT IS COMPLETELY BIODEGRADABLE. |
| <u>ACCUMULATION</u> | BIOACCUMULATION OF THIS PRODUCT HAS NOT BEEN DETERMINED. |

SECTION XIII DISPOSAL CONSIDERATIONS

AQUATIC TOXICITY (E.G. 96 HR. TLM): DO NOT DISCHARGE THIS PRODUCT INTO PUBLIC WATERS OR WATERWAYS UNLESS AUTHORIZED BY A NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA).

WASTE DISPOSAL METHOD: RECOVERED SOLIDS OR LIQUIDS MAY BE SENT TO A LICENSED RECLAIMER OR DISPOSED OF IN A PERMITTED WASTE MANAGEMENT FACILITY. NEUTRALIZED LIQUID RESIDUES SHOULD BE ACCEPTABLE FOR DISCHARGE TO A SANITARY SEWER WITH PERMISSION OF THE RECEIVING FACILITY. CONSULT FEDERAL, STATE, AND/OR LOCAL AUTHORITIES FOR APPROVED PROCEDURE. EMPTY CONTAINERS MAY BE TRIPLE RINSED WITH WATER TO REMOVE ALL RESIDUES AND DISPOSED OF IN A SANITARY LANDFILL.

SECTION XIV TRANSPORTATION INFORMATION

| Governing Body | Mode | UN Number | Proper Shipping Name | Hazard Class | Packing Group |
|--------------------------|--------|--|--|--------------|---------------|
| DOT | GROUND | 3264 | CORROSIVE LIQUID, ACIDIC, INORGANIC N.O.S. | 8, CORROSIVE | III |
| IATA | AIR | 3264 | CORROSIVE LIQUID, ACIDIC, INORGANIC N.O.S. | 8, CORROSIVE | III |
| IMDG | OCEAN | 3264 | CORROSIVE LIQUID, ACIDIC, INORGANIC N.O.S. | 8, CORROSIVE | III |
| MARINE POLLUTANT: | | THIS PRODUCT DOES NOT CONTAIN A MATERIAL ON THE MARINE POLLUTANTS TABLE (HMT 172.101 APPENDIX B) | | | |

SECTION XV REGULATORY INFORMATION

CERCLA: IF THE REPORTABLE QUANTITY OF THIS PRODUCT IS ACCIDENTALLY SPILLED, THE INCIDENT IS SUBJECT TO THE PROVISIONS OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA) AND MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER BY CALLING 1-800-424-8802 or 202-426-2675.
NO REPORTABLE SPILL QUANTITY (RQ) HAS BEEN ESTABLISHED FOR THIS PRODUCT.

SARA TITLE III: UNDER THE PROVISIONS OF TITLE III, SECTIONS 311/312 OF THE SUPERFUND AMENDMENTS AND RE-AUTHORIZATION ACT, THIS PRODUCT IS CLASSIFIED INTO THE FOLLOWING HAZARD CATEGORIES: DELAYED HEALTH, FIRE

ADDITIONAL REGULATORY CONCERNS: (FEDERAL, FDA, USDA, CPSC, STATE, OTHER)

FEDERAL:

FDA:

USDA:

CERCLA / RQ: **NONE ESTABLISHED**

TSCA: IS THIS PRODUCT, OR ALL ITS INGREDIENTS, BEING CERTIFIED FOR INCLUSION ON THE TOXIC SUBSTANCES CONTROL ACT INVENTORY OF CHEMICAL SUBSTANCES? **YES**

SECTION XVI OTHER INFORMATION

PREPARED BY DARRYL MANUEL / PRESIDENT
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ADDRESS: 7240 STATE RD., PHILA., PA 19135 USA
THE INFORMATION PROVIDED IN THIS MATERIAL SAFETY DATA SHEET HAS BEEN OBTAINED FROM SOURCES BELIEVED TO BE RELIABLE. VEXCON PROVIDES NO WARRANTIES, EXPRESSED OR IMPLIED, AND ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED HEREIN.

| HMIS HAZARD RATINGS: | | | KEY |
|---|-----------------------|---------------------|--------------|
| THIS INFORMATION IS FOR PEOPLE TRAINED IN: NATIONAL PAINT AND COATINGS ASSOCIATIONS (NPCA) HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS) NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 704) IDENTIFICATION OF FIRE HAZARDS OF MATERIALS | | | |
| STARSEAL MASONARY & RESTORATION CLEANER | NPCA- HMIS | NFPA 704 | 4 -- SEVERE |
| HEALTH | 3 | 3 | 3 -- SERIOUS |
| FLAMMABILITY | 0 | 0 | 1 -- SLIGHT |
| REACTIVITY | 0 | 0 | 0 -- MINIMAL |