




G.K. Chemical Specialties Co. Inc.
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SAFETY DATA SHEET (SDS)

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| PRODUCT NAME: SR 1 SPOT AND STAI REMOVER (water based) | |
| HEALTH HAZARD RATING: | (2)- MODERATE HAZARD NFPA Rating |
| FLAMMABILITY HAZARD RATING: | (0)- MINIMAL HAZARD |
| REACTIVITY HAZARD RATING: | (0)- MINIMAL HAZARD |
| PERSONAL PROTECTION: | B - (Safety glasses, Gloves,) |
| HAZARD ALERT SIGN: |  |

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| SECTION 1 – IDENTIFICATION | |
| PRODUCT IDENTIFIER | |
| PRODUCT NAME | SR 1- SPOT ANDSTAI REMOVER (water based) |
| MANUFACTURER'S NAME AND ADDRESS EMERGENCY PHONE NO. | G.K. Chemical Specialties Co. Inc. 90 Barbados Blvd. Scarborough, Ontario M1J 1K9 (416) 261-7182 / 905 427-7605/ 416-526-4037 CHEMTREC(24 HR EMERGENCY) 1-800-424-9300 International CHEMTREC: 1-703-527-3887 |
| SUPPLIER'S NAME AND ADDRESS EMERGENCY PHONE NO. | |
| CHEMICAL NAME | NOT APPLICABLE |
| CHEMICAL FAMILY | NOT APPLICABLE |
| TRADE NAME AND SYNONYMS | NOT APPLICABLE |
| MATERIAL USE | COMMERCIAL, INSTITUTIONALAND INDUSTRIAL CLEANING |

G.K. Chemical Specialties Co. Inc. has compiled the information and recommendations contained in this Safety Data Sheet from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the SDS was prepared. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation.

G.K. Chemical Specialties Co. Inc. extends no warranty and assumes no responsibility as to the accuracy of the content or sufficiency of the information and expressly disclaims all liability for reliance thereon. This SDS provides guidelines for the safe handling of this product. It does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required. Individuals exposed to this product should read and understand this information and be provided pertinent training prior to working with this product.

G.K. Chemical Specialties Co. Inc. assumes no responsibility for personal injury or property damage to vendors, users or third parties caused by the material. Such vendors or users assume all risks associated with the use of the material.

INGREDIENTS. This SDS, under section of Ingredients, contains all ingredients listed under INGREDIENT DISCLOSURE LIST P.C. 1987-2719, 20/1/88 CANADA GAZETTE PART II VOL. 122, No 2 of HAZARDOUS PRODUCT ACT.

Percentage range of concentration of ingredients is expressed as percentage by weight of the total weight of the product. Ingredient List does not necessarily list all ingredients in the formulation and does not necessarily list all ingredient range of concentration, other than ingredients under the Disclosure List.

T.L.V. (units) or Threshold Limit Values refer to the limiting concentrations recommended by the Ministry of Labour. These values were adopted by the American Conference of Governmental Industrial Hygienists (A.C.G.I.H.). The figures refer to time-weighted average concentrations as P.P.M. (V/V) or mg/m³ for a normal working day or at any time for some materials.

"C.A.S REG. No." means the identification number assigned to a chemical substance by the Chemical Abstracts Service Division of the American Chemical Society.

"LC 50" means the concentration of a substance in air that when administered by means of inhalation over a specified length of time in an animal assay, is expected to cause the death of 50 per cent of a defined animal population.

"LD 50" means the single dose of a substance that, when administered by a defined route in an animal assay, is expected to cause death of 50 per cent of a defined animal population.

FLASH POINT. The minimum temperature at which a substance gives off flammable vapors which in contact with spark or flame will ignite.

NIOSH- National institute for occupational safety and health

STEL- Short term exposure limit

TWA- Time-weighted average

PEL- Permissible exposure limit

ACGIH- American conference of governmental industrial hygienist

OSHA- Occupational safety and health act

SECTION 2 – HAZARD IDENTIFICATION

Dangerous Goods-**WHMIS** Hazard: Class D. DIV. 2B

OSHA HAZARDS: Irritant

GHS CLASSIFICATION

Acute Toxicity (oral) – Category 4

Serious Eye Damage – Category 1

Skin Corrosion/Irritation – Category 2

HAZARDOUS SUBSTANCE (HSNO) CLASSIFICATION

Toxic liquid: CLASS D, DIV 2B

GHS Label Elements, including precautionary statements: Hazard Statements:

Signal word: DANGER

HAZARD STATEMENTS

H315: Causes skin irritation

H318: Causes serious eye damage

H302: Harmful if swallowed

H335-May cause respiratory irritation

PREVENTION

P260- Do not breathe fumes, mist, vapors or spray

P264: Wash skin thoroughly after handling

P280: Wear protective gloves/ protective clothing/ eye protection/ face protection

P405: Store locked up

RESPONSE

P305+P351+P338- IF IN EYES: Rinse cautiously with water for several minutes: Remove contact lenses if present and easy to do so. Continue rinsing.

P301 + P310: If swallowed: Immediately call a POISON CENTER or doctor/ physician.

P301 + P330 + P331” IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P304 +P340 + P310: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician

P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water. Shower

POTENTIAL HEALTH EFFECTS

INHALATION: If mist is inhaled may be harmful. May Cause respiratory tract irritation.

SKIN: May cause skin irritation

EYE: May cause serious damage

INGESTION: May be fatal if swallowed

NOTE: No critical hazard for product at use dilution



| SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS | | | | |
|---|------------------------------------|-------------------------------------|---|--------------------------------|
| HAZARDOUS INGREDIENTS | APPROXIMATE CONCENTRATION % | C.A.S., N.A. OR U.N. NUMBERS | LD50 {SPECIFY SPECIES & ROUTE} | LC 50 {SPECIFY SPECIES} |
| Sodium Metasilicate pentahydrate | 1 - 3 | 10213-79-3 | Oral (Rat): 1153 mg/kg Dermal (Rabbit): 250mg/24h | TWA: 2 mg/m³ |
| Diphosphoric acid, sodium salt (1:2) | 1 - 3 | 7758-16-9 | Oral (Mouse): 2,650 mg/kg Dermal (Rabbit):>2,640mg/kg | TWA:10 mg/m³ |
| 9-Octadecanoic acid Potassium salt | 7 - 15 | 143-18-0 | Oral(Rat):>5,000 mg/kg Dermal (Rabbit):>2,000mg/kg | |
| Tetrasodium ethylenediamine tetraacetate | < 1 | 64-02-8 | Oral (Rat): 3,030 mg/kg Dermal (Rabbit):>5,000mg/kg | |
| 2-Butoxyethanol | 1 - 3 | 111-76-2 | Oral (Rat): 1,300mg/kg Dermal (Rabbit):>5,000mg/kg | |
| Cocoamide DEA | 3 - 7 | 68603-42-9 | Oral (Rat) : >5,000mg/kg Dermal (Rabbit):>2,000mg/kg | |
| Alcohols, C9-C11, Ethoxylated | 3 - 7 | 68439-46-3 | Oral (Rat) : 1,400 mg/kg Dermal (Rabbit) :>5000mg/kg | |
| Poly(oxy-1,2 ethanediyl) a– Hydro-w hydroxyl-decyl ethers phosphate | 1 - 3 | 9004-80-2 | Oral (Rat): >1,500 mg/kg Dermal (Rabbit):>5,000mg/kg | |
| TEA- Lauryl Sulfate | 1 - 3 | 139-96-8 | Oral (Rat): 270-1950 mg/kg Dermal (Rabbit): >2000mg/kg | |
| Water, inert | Balance | Non hazardous | | |

| SECTION 4 – FIRST AID MEASURES | |
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| SKIN CONTACT | Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary. |
| EYE CONTACT | Immediately hold eyelids open and flush with water for at least 15 minutes. Seek medical attention. |
| INHALATION | Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary |
| INGESTION | Harmful if swallowed. Do not induce vomiting. Drink 1 or 2 glasses of water. Seek immediate medical attention. Never give anything by mouth to an unconscious or convulsing person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. |
| NOTES TO PHYSICIAN | Causes respiratory irritation if inhaled. Symptoms may include: Coughing, choking and sneezing. Inhalation could result in pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed. May cause severe damage to the eyes. Symptoms may include stinging, tearing, redness. |

| SECTION 5 – FIRE-FIGHTING MEASURES | |
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| FLASH POINT (°C) | Nil |
| FLASH POINT METHOD | Not applicable |
| AUTOIGNITION TEMPERATURE (°C) | Non-combustible |
| UPPER FLAMMABLE LIMIT (% VOL.) | Not applicable |
| LOWER FLAMMABLE LIMIT (% VOL.) | Not applicable |
| HAZARDOUS COMBUSTION PRODUCTS | Oxides of Phosphorus, Oxides of Nitrogen, Carbon monoxide, Carbon dioxide, Oxides of Sulphur |
| UNUSUAL FIRE/ EXPLOSION HAZARDS | No |
| SENSITIVITY TO MECHANICAL IMPACT | No. |
| SENSITIVITY TO STATIC DISCHARGE | No |
| EXTINGUISHING MEDIA | Use extinguishing agents appropriate for the burning material. Use water spray to keep fire-exposed containers cool |
| SPECIAL FIRE FIGHTING PROCEDURES | Fire fighters should wear full protective clothing, including self-contained breathing equipment. The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of Oxides of Phosphorus, Oxides of Nitrogen, Carbon Dioxide, Carbon Monoxide, Oxides of Sulphur |

| SECTION 6 – ACCIDENTAL RELEASE MEASURES | |
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| LEAK AND SPILL PROCEDURE | Stop leak. Move containers from spill area. Absorb spill with vermiculite absorbent material, and place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. LARGE SPILL: Stop leak if without risk. Mop up liquid and clean surfaces thoroughly with water. Material can create slippery conditions. Use non-slip safety shoes. |
| ENVIRONMENTAL PRECAUTIONARY | Prevent entry into sewers or streams. Any release to the environment should be subject to federal or local reporting requirements. |
| PERSONAL PRECAUTIONARY MEASURES | Wear protective clothing during cleanup. See section 8 for recommendations on the use of personal protective equipment. Avoid breathing vapors, mist or gas. Avoid contact with clothing and skin. |

| SECTION 7 – HANDLING AND STORAGE | |
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| HANDLING PROCETURES | Avoid contact with eyes and skin. Avoid ingestion. Use good industrial hygiene practices in handling this product. Keep container closed when not in use. |
| STORAGE NEEDS | Keep container tightly closed. Store in a cool area above freezing point. Keep out of the reach of children. Keep in properly labeled containers. |

| SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION | |
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| VENTILATION REQUIREMENTS | Good ventilation is recommended. When ACGIH TLV (Threshold Limit Value) is greater than 2 mg/ m ³ as Sodium Metasilicate provide exhaust ventilation or other engineering controls to keep the airborne concentration of vapors below their respective. NIOSH Ceiling: 2 mg/m ³ , ACGIH TLV Ceiling 2 mg/m ³ , OSHA PEL 2mg/m ³ Sodium metasilicate (10213-79-3). Amount of this ingredient in the formulation is very small (less than 2%). |

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| PROTECTIVE EQUIPMENT | Ensure that eyewash stations are proximal to the work-station location. The selection of personal protective equipment will vary depending on the condition of use |
| EYE/TYPE | Splash goggles, safety glasses |
| RESPIRATORY/TYPE | Approved/ certified vapor respirator when airborne concentration exceed exposure limits. |
| GLOVE/TYPE | Nitrile, Vinyl, Butyl impervious gloves |
| FOOTWEAR/TYPE | Boots. Chemical resistant and as specified by the workplace. |
| BODY/TYPE | Protective clothing is required. Use impervious clothing (apron, coveralls). The selection of personal protective equipment will vary depending on the conditions of use. |

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

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| APPEARANCE – PHYSICAL STATE | Clear yellow liquid |
| ODOUR | Mild cherry |
| ODOUR THRESHOLD (PPM) | Not determined |
| PH | 12.30 ± 0.5 concentrate. For 2% solution in water 11.10 ± 0.5 |
| MELTING POINT (°C) | See freezing point |
| BOILING POINT (°C) | >100°C (212° F) INITIAL |
| FREEZING POINT (°C) | 0°C (32° F) |
| EVAPORATION RATE | >1.00 (n-Butyl Acetate) |
| FLAMMABILITY | Not combustible |
| FLASH POINT (°C) | Not applicable |
| AUTO IGNITION TEMPERATURE | Not applicable |
| DECOMPOSITION TEMPERATURE | Not available |
| VAPOUR DENSITY | Not available |
| VAPOUR PRESSURE | Not determined |
| SOLUBILITY | Completely soluble in water |
| VISCOSITY | Thin liquid |
| % VOLATILE BY VOLUME | 78± 0.5 % |
| SPECIFIC GRAVITY | 1.02 ± 0.02 gm / cm ³ @ 20°C |

SECTION 10 – STABILITY AND REACTIVITY

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| REACTIVITY | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| CHEMICAL STABILITY | Stable under normal conditions |
| POSSIBILITY OF HAZARDOUS REACTIONS | Arise in contact with incompatible materials |
| CONDITIONS TO AVOID | Avoid incompatible materials |
| INCOMPATIBLE MATERIALS | Avoid contact with strong Acids, strong oxidizing agents, Peroxides and phenols |
| HAZARDOUS DECOMPOSITION PRODUCTS | Oxides of Phosphorous, Oxides of Nitrogen, Carbon dioxide, Carbon monoxide, Oxides of sulphur |

SECTION 11 –TOXICOLOGICAL INFORMATION

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| TOXICITY EFFECTS ON ANIMALS | <p>For Sodium Metasilicate Pentahydrate (10213-79-3): Acute oral toxicity LD50 (Rat) : 1153 mg/kg. Acute dermal (Rabbit): 250mg/kg/24 h.</p> <p>For Diphosphoric acid, sodium salt (1:2) (7758-16-9): Acute Oral Toxicity LD50 (Mouse): 2,650 mg/kg. Acute Dermal Toxicity LD50 (Rabbit): >2,640 mg/kg.</p> <p>For 9-Octadecanoic acid Potassium salt (143-18-0). Acute Oral (Rat): >5,000 mg/kg, Acute Dermal (Rabbit) : >2,000mg</p> |
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| | <p>For Tetrasodium ethylenediamine tetraacetate (64-02-8): Acute Oral (Rat): 3,030 mg/kg, Dermal (Rabbit): >5,000 mg/kg</p> <p>For 2-Butoxyethanol (111-76-2): Acute Oral toxicity LD50 (Rat): 1,300 mg/kg. Acute Dermal Toxicity LD50 (Rabbit): >5,000 MG/KG mg/kg</p> <p>For Cocoamide DEA (68603-42-9): Acute Oral toxicity LD50 (Rat): >5,000 mg/kg, Dermal (Rabbit): >2,000 mg/kg</p> <p>For Alcohols, C9-C11, Ethoxylated (68439-46-3): Acute Oral toxicity LD50(Rat): 1,400 mg/kg, Dermal (Rabbit): >5,000 mg/kg</p> <p>For Poly(oxy-1,2 ethanediyl) a- Hydro-w hydroxyl-decyl ethers phosphate (9004-80-2): Acute Oral toxicity LD50 (Rat): >1,500 mg/kg, Dermal (Rabbit): >5,000 mg/kg .</p> <p>For TEA- Lauryl Sulfate (139-96-8): Acute Oral Toxicity LD50 (Rat): 270-1950 mg/kg. Acute Dermal Toxicity LD50 (Rabbit): >2,000 mg/kg</p> |
| TOXIC EFFECTS ON HUMANS | <p>Inhalation: Large inhalation of mist may cause irritation to the respiratory tract, leading to sore throat, coughing, shortness of breath and delayed lung edema.</p> <p>Ingestion: May cause circulatory system failure. Causes digestive tract burns with abdominal pain, vomiting, and possible death. May cause corrosion and tissue destruction of the esophagus and digestive tract.</p> <p>Skin contact: Contact with this liquid as sold may cause irritation and ulceration. No critical hazard for product at use dilution.</p> <p>Eye contact: Causes severe eye irritation</p> |
| CHRONIC EFFECTS ON HUMANS | Prolonged contact with skin may defat tissue causing dermatitis or skin problems. |
| CARCINOGENICITY | No evidence |
| TERATOGENICITY | No data available |
| MUTAGENICITY | No evidence |
| REPRODUCTIVE EFFECTS | No evidence |

| SECTION 12 –ECOLOGICAL INFORMATION | |
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| ECOTOXICITY DATA | <p>Figures for Sodium metasilicate pentahydrate (10213-79-3) Ecotoxicity in water (LC50): Acute toxicity to fish: 2320 ppm/96 hours/ Mosquito fish (Gambusia affinis). Acute toxicity to aquatic invertebrates: 247 ppm/ 96 hours Daphnia magna. Acute toxicity to snail eggs (Lymnea): 632 ppm/ 96 h. This ingredient is inorganic and not subject to biodegradation.</p> <p>Figures for Diphosphoric acid, sodium salt (1:2) (7758-16-9): No data found. This material will slowly hydrolyze in water to Orthophosphate which can act as a plant nutrient and precipitate heavy metals. This material will provide in the formulation a small amount (<1.15 %) of Phosphorus as P₂O₅ .</p> <p>Figures for 9-Octadecanoic acid Potassium salt (143-18-0): Toxicity to fish LC50 Lepomis macrochirus (Bluegill): 23,000 ug/L /96 h/Static (Slightly toxic).LC50 Rainbow trout, Donaldson trout (Oncorhynchus mykiss): 9,100 ug /L / 96 h/ Static (Moderately toxic). Acute toxicity to aquatic invertebrates. EC50 Daphnia magna (Water flea) : 570 ug /L / 48 h/Static</p> <p>Figures for Tetrasodium ethylenediamine tetraacetate (64-02-8): Toxicity to fish LC50, Lepomis macrochirus (Bluegill sunfish): 1,592 mg /L /96 h, static test. Aquatic Invertebrate acute toxicity EC50, Daphnia magna (Water flea): 610-1,033 mg / L / 24 h, immobilization</p> <p>Figures for 2-Butoxyethanol (111-76-2): Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50 >100 mg /L in most sensitive species tested. Acute Toxicity Crustacea EC50, Daphnia magna (Water flea), static test: 1,550 mg / L /48h. BIODEGRADABLE product.</p> |

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| | <p>Figures for 2 –Cocoamide DEA (68603-42-9) Toxicity to fish LC50 (Zebra fish): 6.7 mg /L / 96 h/Static. EC50, Daphnia magna (Water flea): 3.3 mg /L /24 h./Static.</p> <p>For Alcohols, C9-C11, Ethoxylated (68439-46-3): Acute toxicity to fish LC50, Fathead minnow (Pimephales promelas): 8.5 mg / L/96 h. EC50 ,Daphnia magna (Water flea): 5.3 mg /L/ 48 h. Material is BIODEGRADABLE.</p> <p>For Poly(oxy-1,2 ethanediyl) a- Hydro-w hydroxyl- decyl ethers phosphate (9004-80-2): No data available.</p> <p>Figures for TEA-Lauryl Sulfate (139-96-8): Acute Toxicity to fish LC50: 1.36 mg /L /96 h. Acute Toxicity to aquatic invertebrates, EC50, Daphnia magna (Water flea): 5.5 mg /L 48 h. EC50 Algae: 53 mg /L/ 72h. Material is toxic to aquatic life. Product is readily BIODEGRADABLE.</p> |
| BIODEGRADABILITY | >90 % |
| PRODUCTS OF DEGRADATION | Not available |

| SECTION 13 – DISPOSAL CONSIDERATIONS | |
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| WASTE DISPOSAL | Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations. This product is hazardous to the aquatic environment in large volumes. Keep out of waterways. |
| INFORMATION ON SAFE HANDLING FOR DISPOSAL INCLUDING ANY CONTAMINATED PACKAGING | Suitable waste facility. |

| SECTION 14 – TRANSPORT INFORMATION | |
|---|----------------|
| UN NUMBER | Not applicable |
| UN PROPER SHIPPING NAME | Not applicable |
| TRANSPORT HAZARD CLASS | Not applicable |
| PACKAGING GROUP | Not applicable |
| ENVIRONMENTAL HAZARDS | nil |
| TRANSPORT IN BULK, if applicable | Not applicable |
| SPECIAL PRECAUTIONS | Nil |

| SECTION 15 – REGULATORY INFORMATION | |
|---|---|
| SAFETY HEALTH & ENVIRONMENTAL REGULATIONS SPECIFIC TO THE PRODUCT | <p>U.S. TSCA inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) INVENTORY List or exempt.</p> <p>Canadian DSL Inventory Status: All components of this product are either on the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL) or exempt.</p> |

| SECTION 16 – OTHER INFORMATION | |
|---------------------------------------|--------------------------|
| PREPARED BY: | Gus Kaklamanos - Chemist |
| TELEPHONE NO.: | 416-261-7182 |
| DATE OF THE LATEST REVISION OF SDS: | October 5, 2017 |