

## 1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Name: ShieldSys™ 520

Product Use: DryFilm Industrial Coatings

### MANUFACTURER/DISTRIBUTOR:

Miller-Stephenson Chemical  
55 Backus Ave.  
Danbury, Conn. 06810 USA  
(203) 743-4447

Emergency Phone Number:  
(800) 424-9300

## 2. HAZARDS IDENTIFICATION

### Hazard classification

Flammable Liquid: Category 2

Serious Eye Damage/Eye Irritation: Category 2A

Specific Target Organ Toxicity (single exposure): Category 3

### GHS Label elements:

#### Signal word

Danger

#### Pictograms



### Hazard Statements

Flammable liquid and vapor.

Causes serious eye irritation.

May cause drowsiness or dizziness

### Precautionary Statements

Keep away from heat/sparks/open flames/hot surfaces and other ignition sources – No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing fumes/gas/vapor/spray.

Wash skin thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/eye protection/face protection.

**IF ON SKIN (or hair):** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
**IF INHALED:** Remove victim to fresh air and keep comfortable for breathing.  
Call a POISON CENTER or doctor/ physician if you feel unwell.  
**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/ attention.  
Store in a well-ventilated place. Keep container tightly closed. Keep cool.  
Dispose of contents/container to an approved waste disposal plant.

#### **Other Hazards**

The thermal decomposition vapors of fluorinated polymers may cause polymer fume fever with flu-like symptoms in humans, especially when smoking contaminated tobacco. Vapors may form explosive mixture with air.

### **3. INGREDIENTS**

<u>Material (s)</u>	<u>CAS No.</u>	<u>Approximate %</u>
Isopropyl Alcohol	67-63-0	11 – 15
Polytetrafluoroethylene	9002-84-0	2 – 4

**Composition Comments:** Aqueous emulsion of polyorganosiloxanes, additives.

### **4. FIRST AID MEASURES**

**Inhalation:** Remove patient to fresh air. Get medical attention if necessary.

**Eye:** Flush with large amounts of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention.

**Skin:** Wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

**Oral:** If swallowed, DO NOT induce vomiting unless directed to do so by a physician. Rinse mouth thoroughly with water. Never give anything to an unconscious person. Get medical attention.

**Most important symptoms and effects, both acute and delayed:** Local irritation. Symptoms may be delayed. Respiratory tract irritation. Lung edema. Impairment of vision. Causes serious eye irritation.

**Notes to physician:** Treat symptomatically and supportively.

### **5. FIRE FIGHTING MEASURES**

**Flash Point:** 93°F/34°C

**Method:** Tag Closed Cup

**Autoignition Temperature:** 750°F /399°C

**Flammable Limits in Air, % by Vol.:**

LEL: 2%

UEL: 12%

**Suitable Extinguishing Media:** Water spray, Alcohol-resistant foam, Dry chemical, Carbon dioxide (CO2)

**Unsuitable extinguishing media:** High volume water jet.

**Special hazards:** Flammable liquid. Vapor forms explosive mixture with air. Vapors are heavier than air and may spread along the floor. Vapors or gases may travel considerable distances to ignition sources and flash back. Hazardous gases/vapors produced in fire are carbon monoxide, carbon dioxide and fluorinated compounds.

**Special Fire Fighting Instruction:** In the event of fire, wear self-contained breathing apparatus and other protective clothing to prevent contact with the skin and eyes.

**Specific extinguishing methods:** Evacuate area. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Keep unopened containers cool by spraying with water.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment (See Section 8). Avoid bases. Eliminate all sources of ignition.

**Environmental precautions:** If containers rupture, prevent material from entering sewers, waterways, or low areas. Local authorities should be advised if significant spillages cannot be contained.

**Methods and material for containment and cleaning up:** Contain spillage. Ventilate the area. Use only non-sparking tools. Absorb with inert material. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.

**Notification Procedures:** Caution: Contaminated surfaces may be slippery. For waste disposal, see section 13 of the SDS.

## 7. HANDLING AND STORAGE

**Handling:** Avoid contact with eyes, skin, or clothing. Do not inhale vapor or mist. Wash thoroughly after handling. Keep away from heat, sources of ignition, sparks, and open flame. Take measures to prevent the buildup of electrostatic charge. Do not consume food, drink or smoke in areas that may be contaminated with this material.

**Storage Conditions:** Store in tightly closed, original container in a dry, cool and well-ventilated place. Keep away from incompatible materials, open flames, and high temperatures.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limits:**

Isopropyl Alcohol

**TWA (ACGIH)**

200 ppm

**TWA (OSHA)**

400 ppm

**Respiratory Protection:** General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

**Eye Protection:** Avoid eye contact. Use chemical goggles or safety glasses with side shields.

**Skin Protection:** Avoid contact with skin. Use gloves impervious to this material when prolonged or frequently repeated contact occurs. For special applications, we recommend clarifying the resistance to chemicals of the protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday. Breakthrough time is not determined for the product. Change gloves often.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Boiling Point:** approx. 207°F/97°C

**Percent Volatile by Volume:** 95 – 98 %

**Density:** 1.00 g/cc

**Vapor Pressure:** 36 mmHg @ 20°C

**Vapor Density (Air=1):** No data available

**Solubility in H<sub>2</sub>O :** Dispersible

**pH Information:** 8-10

**Evaporation Rate (CC14=1):** No data available

**Form:** Liquid

**Appearance:** White Liquid

**Color:** White

**Odor:** Slight Alcohol

## 10. STABILITY AND REACTIVITY

**Reactivity:** Not classified as a reactivity hazard.

**Chemical stability:** Stable under normal conditions.

**Possibility of hazardous reactions:** Vapors may form flammable mixture with air. In use may form flammable/explosive vapor-air mixture. Hazardous decomposition products will form at elevated temperatures.

**Conditions to Avoid:** Heat, sparks, and flames. Exposure to elevated temperatures, direct sunlight. Decomposition temperature is 572°F/300°C.

**Incompatible Materials:** Avoid contact with: Aldehydes. Halogenated compounds. Strong acids. Strong oxidizers. Strong bases. Reactive metals. Alkali metals. Alkaline earth metals.

**Hazardous decomposition products:** Carbon oxides. Fluorinated compounds

## 11. TOXICOLOGICAL INFORMATION

### Isopropyl Alcohol

**Acute Oral:** LD50, Rat, > 5,000 mg/kg

**Acute Dermal:** LD50, Rabbit, > 5,000 mg/kg

**Acute Inhalation (vapor):** 6 hour LC50, Rat > 25 mg/l

**Skin Corrosion/Irritation:** No skin irritation in rabbits.

**Serious Eye Damage/Irritation:** Irritation to eyes in Rabbits, reversing within 21 days.

**Skin Sensitization:** Buehler Test (skin contact) is negative in Guinea pig. Method OECD Test Guideline 406

**Respiratory Sensitization:** Not classified based on available information.

**Germ Cell Mutagenicity:** In vitro and In vivo - Not Mutagenic

**Carcinogenicity:** Negative in rats exposed 104 weeks by inhalation (vapor). Method: OECD Test Guideline 451

**Reproductive Toxicity:** Negative in rats by ingestion based on Two-generation reproduction toxicity study and Embryo-fetal development.

**STOT- single exposure:** May cause drowsiness or dizziness

**STOT- repeated exposure:** NOAEL, Rat exposed 104 weeks by inhalation (vapor): 12.5 mg/l

**Aspiration toxicity:** Not classified based on available information.

## 12. ECOLOGICAL INFORMATION

### Isopropyl Alcohol:

**Toxicity to fish:** 96 hour LC50 in Pimephales promelas (fathead minnow): 10,000 mg/l

**Toxicity to daphnia and other aquatic invertebrates:** 24 hour EC50 in Daphnia magna (water flea): >10,000 mg/l

**Toxicity to microorganisms:** 16 hour EC50 in Pseudomonas putida: >1,050 mg/l

**Persistence and degradability:** Rapidly degradable. BOD: 1.19 (BOD5)COD: 2.23BOD/COD: 53%

**Bioaccumulative potential:** Partition coefficient: n-octanol/water: log Pow: 0.05

**Mobility in soil:** No data available.

## 13. DISPOSAL CONSIDERATIONS

Empty containers must not be burned because of the explosive hazard. Recover and reclaim or recycle, if practical. Comply with Federal, State/Provincial and Local regulations. Remove to a permitted waste disposal facility.

## 14. TRANSPORT INFORMATION

### U.S. DOT

**Proper Shipping Name:** Isopropanol

**Hazard Class:** 3

**Identification No.** UN1219

**Packing Group:** II

### IATA

**Proper Shipping Name:** Isopropanol

**Hazard Class:** 3

**Identification No.** UN1219

**Packing Group:** II

### IMDG

**Proper Shipping Name:** Isopropanol

**Hazard Class:** 3

**Identification No.** UN1219

**Packing Group:** II

## 15. REGULATORY INFORMATION

### U.S. Federal Regulations

**TSCA:** All ingredients are listed in TSCA inventory.

**CERCLA Reportable Quantity:** This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity:** This material does not contain any components with a section 304 EHS RQ.

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity:** This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards:** No SARA Hazards

**SARA 313:** This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR 372). They may not be intentionally present in the product; however, it is possible that it may be present as an impurity and the exact concentration may vary between batches:

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctanesulphonic acid, CAS No.: 27619-97-2, < 27 ppb

Perfluorobutanoic acid, CAS No.: 375-22-4, < 1.0 ppb

Perfluorohexanoic acid, CAS No.: 307-24-4, < 1.1 ppb

Perfluorononanoic acid, CAS No.: 375-95-1, < 1.5 ppb

Perfluorododecanoic acid, CAS No.: 307-55-1, < 1.7 ppb

Perfluorodecanoic acid, CAS No.: 335-76-2, < 1.8 ppb

Perfluorooctanoic acid, CAS No.: 335-67-1, < 3 ppb

## U.S. State Regulations

### California Prop. 65

WARNING: This product can expose you to chemicals including pentadecafluorooctanoic acid, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov). Note to User: This Product is not made with PFOA nor is PFOA intentionally present in the product; however, it is possible that the PFOA may be present as an impurity at background (environmental) levels.

## 16. OTHER INFORMATION

### NPCA-HMIS Ratings:

Health - 2

Flammability - 3

Physical Hazard - 0

Personal Protective rating to be supplied by user depending on the conditions.

### FOR INDUSTRIAL USE ONLY

**DATE: February 14, 2025**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user.