



MATERIAL SAFETY DATA SHEET
ALSAN RS CLEANER

HMIS	PROTECTIVE CLOTHING	TRANSPORT OF DANGEROUS GOODS
<div style="border: 1px solid black; padding: 5px;"> <div style="background-color: #0056b3; color: white; padding: 2px; margin-bottom: 2px;">2 HEALTH</div> <div style="background-color: #ff0000; color: white; padding: 2px; margin-bottom: 2px;">3 FLAMMABILITY</div> <div style="background-color: #ff9900; color: white; padding: 2px; margin-bottom: 2px;">1 REACTIVITY</div> <div style="background-color: #cccccc; color: black; padding: 2px;">G PROTECTIVE EQUIPMENT</div> </div>		<div style="text-align: center;"> </div> <p style="text-align: right;">ETHYLACETATE CLASS 3 UN 1173 P.G.: II</p>

SECTION II. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name:	Alsan RS Cleaner		
Product number:	L-RS007		
Use:	Cleaning liquid		
Manufacturer:	Soprema, Inc. 310 Quadral Drive Wadsworth, Ohio 44281 UNITED STATES		
Distributor:	Soprema, Inc. 310 Quadral Drive Wadsworth, Ohio 44281 UNITED STATES		
In case of emergency:	SOPREMA (8:00am to 5:00pm - Eastern time):	(800) 356-3521	
	CHEMTREC (USA) (24h.):	(800) 424-9300	
	CANUTEC (Canada):	(613) 996-6666	
	International:	(703) 527-3887	

EMERGENCY OVERVIEW!!!

WARNING! FLAMMABLE LIQUID AND VAPOR. HARMFUL IF SWALLOWED OR INHALED. AFFECTS CENTRAL NERVOUS SYSTEM. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.

SECTION II. COMPOSITION AND INFORMATION ON DANGEROUS INGREDIENTS

Component	CAS#	% by weight	ACGIH TLV	OSHA PEL
Ethyl acetate	141-78-6	100	400 ppm (TWA)	400 ppm (TWA)

SECTION III. TOXICOLOGICAL INFORMATION

Inhalation:

Inhalation can cause severe irritation of mucous membranes and upper respiratory tract. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. High concentrations may cause lung damage. An irritant to the nose, throat, and upper respiratory tract. Exposure to high concentrations have a narcotic effect and may cause liver and kidney damage.

Ingestion:

Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.

Skin Contact:

Causes irritation to skin. Symptoms include redness, itching, and pain. Repeated or prolonged contact with the skin has a defatting effect and may cause dryness, cracking, and possibly dermatitis.

Eye Contact:

Causes irritation, redness, and pain.

Chronic Exposure:

Chronic overexposure may cause anemia with leukocytosis (transient increase in the white blood cell count) and damage to the liver and kidneys.

Aggravation of Pre-existing Conditions:

Persons with pre-existing skin disorders or eye problems, or impaired liver, kidney or respiratory function may be more susceptible to the effects of the substance.

SECTION IV. FIRST AID MEASURES

SKIN	Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
EYES	Hold eyes open and flush for at least 15 minutes with large amounts of water. Seek medical attention.
INHALATION	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
INGESTION	Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

SECTION V. FIRE-FIGHTING MEASURES

Flash point	25 °F (-4 °C)
Auto-ignition temperature	799 °F (426 °C)
Flammable limits in air % by vol.	LEL: 2.0; UEL: 11.5
Flammable Liquid and Vapor! Contact with strong oxidizers may cause fire.	
Explosion	Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back. Sealed containers may rupture when heated. Sensitive to static discharge.
Extinguishing media	Water spray, dry chemical, alcohol foam, or carbon dioxide. Water may be ineffective. Water spray may be used to keep fire exposed containers cool.
Special fire fighting procedures	In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures. Vapors can flow along surfaces to distant ignition source and flash back.

SECTION VI. ACCIDENTAL RELEASE MEASURES

RELEASE OR SPILL:

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802. If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures.

SECTION VII. HANDLING AND STORAGE

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

SECTION VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

AIRBORNE EXPOSURE LIMITS	OSHA Permissible Exposure Limit (PEL): 400 ppm (TWA)
	ACGIH Threshold Limit Value (TLV): 400 ppm (TWA), A4 - Not classifiable as a human carcinogen.
SKIN	Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
RESPIRATORY	If the exposure limit is exceeded and engineering controls are not feasible, a full facepiece respirator with organic vapor cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.
EYES	Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.
ENGINEERING CONTROLS	A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

SECTION IX. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Clear liquid
ODOR	Ethyl acetate
pH	No information given
MELTING POINT	-117 °F (-83 °C)
BOILING POINT	171 °F (77 °C)
% VOLATILES BY VOLUME @ 70°F (21 °C)	100
VAPOR DENSITY (AIR = 1)	3.0
VAPOR PRESSURE (mm Hg)	76 @ 68°F (20 °C)
EVAPORATION RATE (BuAc = 1)	6
SOLUBILITY IN WATER	1 ml/10 ml water @ 25 °C
SPECIFIC GRAVITY	0.902 g/cm ³ @ 68°F (20 °C)

SECTION X. STABILITY AND REACTIVITY**STABILITY:**

Stable under ordinary conditions of use and storage. Heat will contribute to instability. Slowly decomposed by moisture.

INCOMPATIBILITY:

Avoid heat, flame and other sources of ignition. Contact with nitrates, strong oxidizers, strong alkalis, or strong acids may cause fire and explosions. Will attack some forms of plastic, rubber, and coatings.

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon dioxide and carbon monoxide may form when heated to decomposition.

HAZARDOUS POLYMERIZATION:

Will not occur.

CONDITIONS TO AVOID:

No information found.

SECTION XI. TOXICOLOGICAL INFORMATION

-----\Cancer Lists\-----

---NTP Carcinogen---

Ingredient	Known	Anticipated	IARC Category
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Ethyl Acetate (141-78-6)	No	No	None
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Inhalation	rat LC50	200 gm/m ³
	oral rat LD50	5620 mg/kg
	Skin rabbit LD50	20 ml/kg
Investigated as a mutagen.		

SECTION XII. ECOLOGICAL INFORMATION

Environmental Fate:

When released into the soil, this material may leach into groundwater. When released into the soil, this material may evaporate to a moderate extent. When released into water, this material may biodegrade to a moderate extent. When released to water, this material is expected to quickly evaporate. When released into the water, this material is expected to have a half-life of less than 1 day. This material has a log octanol-water partition coefficient of less than 3.0. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material may be moderately degraded by photolysis. When released into the air, this material is expected to have a half-life between 1 and 10 days.

Environmental Toxicity:

For Ethyl Acetate:

96 Hr LC50 Pimephales promelas: 230 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 484 mg/L [flow-through];
 48 Hr EC50 Daphnia magna (water flea): 717 mg/L;
 48 Hr EC50 Scenedesmus subspicatus (algae): 3300 mg/L:

Ethyl Acetate Microtox Data:

5 min EC50 Photobacterium phosphoreum: 1180 mg/L;
 15 min EC50 Photobacterium phosphoreum: 5870 mg/L;
 2 Hr EC50 Pseudomonas fluorescens: 7400 mg/L;
 15 min EC50 Pseudomonas fluorescens: 1500 mg/L

SECTION XIII. DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION XIV. TRANSPORTATION INFORMATION

DOT SHIPPING NAME: ETHYL ACETATE

HAZARD CLASS: 3

PACKAGING GROUP: II

NA/UN#: UN 1173

LABEL: Flammable Liquid

SECTION XV. REGULATORY INFORMATION

-----\Chemical Inventory Status - Part 1\-----

Ingredient TSCA EC Japan Australia

Ethyl Acetate (141-78-6) Yes Yes Yes Yes

-----\Chemical Inventory Status - Part 2\-----

--Canada--

Ingredient Korea DSL NDSL Phil.

Ethyl Acetate (141-78-6) Yes Yes No Yes

-----\Federal, State & International Regulations - Part 1\-----

-SARA 302- -----SARA 313-----

Ingredient RQ TPQ List Chemical Catg.

Ethyl Acetate (141-78-6) No No No No

-----\Federal, State & International Regulations - Part 2\-----

-RCRA- -TSCA-

Ingredient CERCLA 261.33 8(d)

Ethyl Acetate (141-78-6) 5000 U112 No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
 SARA 311/312: Acute: Yes Chronic: Yes Fire: Yes Pressure: No
 Reactivity: No (Pure / Liquid)

SECTION XVI. OTHER INFORMATION

Glossary:

- ACGIH: American Conference of Governmental Industrial Hygienists
- ANSI: American National Standards Institute
- ASTM: American Society for Testing and Materials
- CAS: Chemical Abstract Services
- CFR: Code of Federal Regulations (United States)
- CSA: Canadian Standardisation Association
- DOT: Department of Transportation (United States)
- DSL: Domestic Substances List (Canada)
- EPA: Environmental Protection Agency (United States)
- HMIS: Hazardous Material Information System
- IARC: International Agency for Research on Cancer
- LC50: (Lethal concentration₅₀) Concentration of a substance in air that causes death of 50% mortality of a defined animal population
- LD50: (Lethal dose₅₀) Single dose of a substance that, when administered by a defined route in an animal assay, is expected to cause the death of 50% of a defined animal population.
- NFPA: National Fire Protection Association (United States)
- NIOSH: National Institute for Occupational Safety and Health
- NTP: National Toxicology Program
- OSHA: Occupational Safety & Health Administration (United States)
- PEL: Permissible Exposure Limit
- RCRA: Resource Conservation and Recovery Act (United States)
- RTECS: Registry of Toxic Effects of Chemical Substances
- TDG: Transportation of Dangerous Goods
- TLV: Threshold Limit Value
- TWA: Time-weighted average
- TSCA: Toxic Substances Control Act (United States)
- WHMIS: Workplace Hazardous Materials Information System (Canada)

SECTION XVI. OTHER INFORMATION

Reference:

Supplier MSDS

This MSDS has been prepared by: SOPREMA, INC.

For information: 800-543-3085

The Material Safety Data Sheets of SOPREMA are available on Internet at the following site: [HTTP://WWW.SOPREMA.US](http://www.soprema.us)

Justification of the update:

New MSDS.

This MSDS contains all the information required by ANSI Z-400.1-1998 standard (United States), by regulation 29 CFR Part 1910.1200 of the Hazard Communication Standard of OSHA, and is in accordance with standard DORS/88-66 OF WHMIS Canada.

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier or any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.