

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: **EPSA-PRO Escalator Handrail Cleaner (Solvent Cleaner)**

Produce Use: **Solvent Cleaner**

Manufacture's Name

Aedeas Group Chile LTDA.

Santiago Chile - + 56 2 263 1893

URL: <http://www.escalatorhandrailcleanerpro.com>

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No	Con%	Chemical Formula	Synonyms
Solvent Naphtha (light aliphatic)	64742-89-8	50%	C ₆ H ₁₄	PETROLEUM based Solvent
White Benzene	71-43-2	.1 %	C ₆ H ₆	2-hydroxypropane, isopropanol, isopropyl alcohol, isopropanol

Ingredients	CAS No	Con%	Chemical Formula	Synonyms
ISOPROPYL ALCOHOL (90 - 100%)	67-63-0	50%	(CH ₃) ₂ CHOH	2-hydroxypropane, isopropanol, isopropyl alcohol, isopropanol, isopropyl alcohol, IPA, sec-propanol, sec-propyl alcohol, dimethylcarbinol, propan-2-ol, avantin, avantine, combi-schutz, hartosol, imsol A, isohol, luto-sol, petrohol, rubbing alcohol, spectrar, sterisol, taki-neocol, virahol

3. HAZARDS IDENTIFICATION

Emergency Overview

WARNING! FLAMMABLE LIQUID AND VAPOR. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM. MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE IRRITATION TO SKIN.

SAF-T-DATA(tm) Ratings

Health Rating: 2 - Moderate

Flammability Rating: 3 - Severe (Flammable)

Reactivity Rating: 2 - Moderate

Contact Rating: 3 - Severe

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER

Storage Color Code: Red (Flammable)

Potential Health Effects

Inhalation:

Inhalation of vapors irritates the respiratory tract. Exposure to high concentrations has a narcotic effect, producing symptoms of dizziness, drowsiness, headache, staggering, unconsciousness and possibly death.

Ingestion:

Can cause drowsiness, unconsciousness, and death. Gastrointestinal pain, cramps, nausea, vomiting, and diarrhea may also result. The single lethal dose for a human adult = about 250 mls (8 ounces).

Skin Contact:

May cause irritation with redness and pain. May be absorbed through the skin with possible systemic effects.

Eye Contact:

Vapors cause eye irritation. Splashes cause severe irritation, possible corneal burns and eye damage.

Chronic Exposure:

Chronic exposure may cause skin effects.

Aggravation of Pre-existing Conditions:

Persons with pre-existing skin disorders or impaired liver, kidney, or pulmonary function may be more susceptible to the effects of this agent.

4. FIRST AID MEASURES

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.

Skin Contact:

Immediately flush skin with plenty of water for at least 15 minutes. Call a physician if irritation develops.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

Fire:

Flash point: 12C (54F) CC

Autoignition temperature: 399C (750F)

Flammable limits in air % by volume:

lel: 2.0; uel: 12.7

Explosion:

Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Contact with strong oxidizers may cause fire or explosion. Vapors can flow along surfaces to distant ignition source and flash back. Sensitive to static discharge.

Fire Extinguishing Media:

Water spray, dry chemical, alcohol foam, or carbon dioxide. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak and disperse vapors.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

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! 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.

7. HANDLING AND STORAGE

HANDLING: Avoid contact with eyes. Use in a well-ventilated area.

STORAGE: Store in closed, properly labeled containers in a cool, ventilated area. Keep away from heat, open flames and oxidizing agents. Do not transfer to unmarked

containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Mechanical ventilation and local exhaust. Use explosion proof electrical equipment for very high dust levels.

RESPIRATORY PROTECTION: Recommend a 3M #8710 Dust and Mist Respirator.

SKIN PROTECTION: Use rubber gloves. Wash thoroughly before eating, smoking, applying cosmetics, etc. Launder work clothing before reuse.

EYE PROTECTION: Safety glasses with side shields, goggles and/or a face shield

OTHER PROTECTIVE EQUIPMENT: If necessary, protective rubber apron, shoes or boots, or TYVEC protective suit with hood.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid.

Odor: Rubbing alcohol

Solubility: Miscible in water.

Specific Gravity: 0.79 @ 20C/4C

pH: Neutral

% Volatiles by volume @ 21C (70F): 100

Boiling Point: 82C (180F)

Melting Point: -89C (-128F)

Vapor Density (Air=1): 2.1

Vapor Pressure (mm Hg): 44 @ 25C (77F)

Evaporation Rate (BuAc=1): 2.83

10. STABILITY AND REACTIVITY

Stability: Stable under ordinary conditions of use and storage. Heat and sunlight can contribute to instability.

Hazardous Decomposition Products: Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization: Will not occur.

Incompatibilities: Heat, flame, strong oxidizers, acetaldehyde, acids, chlorine, ethylene oxide, hydrogen-palladium combination, hydrogen peroxide-sulfuric acid combination, potassium tert-butoxide, hypochlorous acid, isocyanates, nitroform, phosgene, aluminum, oleum and perchloric acid.

Conditions to Avoid: Heat, flames, ignition sources and incompatibles

11. TOXICOLOGICAL INFORMATION

Toxicity: A summary of white spirit type hydrocarbons can be found at

<http://www.inchem.org/documents/ehc/ehc/ehc187.htm>

Ingestion of white spirit has been reported to produce gastrointestinal irritation with pain, vomiting and diarrhoea. Lesions of the mucous membranes in the oesophagus and the gastrointestinal tract followed the oral exposure. Owing to its low viscosity and low surface tension, white spirit poses a risk of aspiration into the lungs following oral exposure. A few ml of solvent aspirated into the lungs are able to produce serious bronchopneumonia and 10-30ml may be fatal.

Prolonged dermal exposure to white spirit, e.g., resulting from wearing clothes that have been soaked or moistened by white spirit for hours, may produce irritation and dermatitis.

Single cases of acute toxicity to the kidney, liver and bone marrow have been reported following exposure to white spirit at high levels. However, owing to lack of details and the sporadic nature of the reportings, the relevance of these findings is unclear.

Inhalation of aliphatic hydrocarbon vapours seems to show little toxicity.

NOHSC: No significant ingredient is classified as carcinogenic by NOHSC.

NTP: Benzene is classified by NTP as known to be carcinogenic to humans. See the NTP website for further details.

A web address has not been provided as addresses frequently change.

IARC: Benzene is classed 1 by IARC - carcinogenic to humans. See the IARC website for further details.

A web

12. ECOLOGICAL INFORMATION

Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment. This product is biodegradable. It will not accumulate in the soil or water or cause long term problems.

Biodegradation is expected to be the primary fate process for aliphatic hydrocarbons in soil and water. The rate and extent of biodegradation are dependent on the ambient temperature, the presence of a sufficient number of microorganisms capable of metabolizing the hydrocarbons and the concentration of white spirit in or on the soil or water.

13. DISPOSAL CONSIDERATIONS

Dispose as solid waste in sanitary landfill according to Federal, State and Local regulations.

14. TRANSPORT INFORMATION

UNITED STATES Domestic (Land, D.O.T.)

Proper Shipping Name: ISOPROPANOL
Hazard Class: 3
UN/NA: UN1219
Packing Group: II
Information reported for product/size: 200L

International (Water, I.M.O.)

Proper Shipping Name: ISOPROPANOL
Hazard Class: 3
UN/NA: UN1219
Packing Group: II
Information reported for product/size: 200L

15. REGULATORY INFORMATION

「This MSDS was prepared according to JIS Z 7250:2005 」

16. OTHER INFORMATION

This Data Sheet has been prepared based on currently available information and is subject to revision whenever new information and/or knowledge is acquired. What is described under "HANDLING" is applicable only to ordinary handling.

If special handling is to be involved , take safety measures that are suitable for the relevant application and usage before use.

The above information is delivered to furnish safety data on the product and not for a warranty purpose.