

SPI Supplies Division

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Manufacturer's CAGE: 1P573

Material Safety Data Sheet

Date Effective: December 13, 2011

SPI #00025-XK and 00025-XM
Asahiklin® AK225 Light Duty Degreaser

Section 1: Identification

Chemical Name/Synonyms.....Not known

Chemical family.....HCFC's mixture

Emergencies

Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...

Worldwide phone: 1-(703)-527-3887

Worldwide FAX: 1-(703)-741-6090

Toll-free phone: 1-(800)-424-9300 USA only

Product or Trade Name.....SPI #00025-XK and #00025-XM Asahiklin® AK225

CAS #'s.....422-56-0

Chemical Formula.....3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)

Hazardous Material Information System USA

Health.....1

Fire Hazard.....1

Reactivity.....0

Personal Protection.....0

NFPA Rating (estimated)

Health.....1

Flammability.....1

Reactivity.....0

Section 2: Composition

Water white clear liquid. Warning! High concentrations of vapor can reduce oxygen available for breathing. Harmful if inhaled. May decompose on contact with flames or extremely hot metal surfaces to produce toxic and corrosive products.

Section 3: Hazard Identification

Emergency Overview:

Physical State and Appearance: Transparent colorless liquid

Odors or smells: Odorless

Immediate concerns: Warning! High concentrations of vapor can reduce oxygen available for breathing. Harmful if inhaled. May decompose on contact with flames or extremely hot metal surfaces to produce toxic and corrosive products.

Potential Health Effects:

Eye contact: Avoid contact with eyes; may cause redness, irritation and conjunctivitis.

Skin contact: Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

Inhalation: High concentrations in immediate area can displace oxygen and can cause dizziness, unconsciousness, and possibly death with longer exposure. Keep people away from such vapors without self-contained breathing apparatus.

Ingestion: Ingestion of large amounts may produce abdominal pain, nausea and vomiting. Swallowing small amounts is not likely to produce harmful effects.

Signs and Symptoms of Overexposure:

Eyes: Liquid splashed in the eye may cause redness, irritation and conjunctivitis.

Skin: Prolonged exposure causes redness, pain, drying and cracking of the skin.

Ingestion: For large amounts, abdominal pain, nausea and vomiting.

Inhalation: High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness).

Section 4: First Aid Measures

Eyes: Check for and remove any contact lens. In case of contact, immediately flush eyes with copious amounts of flowing water for at least 15 minutes, retracting eye lids often. Get medical attention if irritation persists.

Skin: Immediately wash skin thoroughly with plenty of water. Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Ingestion: If swallowed, gently wipe or rinse the inside of the mouth with water. **Do not** induce vomiting. Sips of water may be given if person is fully conscious. Never attempt to give anything by mouth to an unconscious or convulsing person. Immediately contact a poison control center, emergency room or physician as further treatment may be necessary.

Inhalation: Remove from exposure area to fresh air immediately. If not breathing, give artificial respiration or give oxygen by trained personnel. Get medical attention immediately.

Notes to physician: Because of the possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, should be used with special caution and only in situations of emergency life support. Treatment of overexposure should be directed at the control of symptoms and the clinical conditions.

Section 5: Fire Fighting Measures

Flammability classification: Not flammable

Auto-Ignition Temperature: Not applicable

Flammable Properties:

Flash Point: Not available.

Flammable Limits:

Lower: Not available

Upper: Not available

Flash Point/Method: None

Extinguishing Media: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

Fire Fighting Procedures: Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

Fire Fighting Equipment: As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear.

Hazardous Decomposition Products: Toxic oxides of carbon and corrosive vapors of hydrogen chloride

Section 6: Accidental Release Measures

Small spill and leak:

Contain spill with dike to prevent entry into sewers

Large spill and leak:

If this material is released into a work area, evacuate the area immediately.

General procedures:

Dike areas to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on absorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal. After all visible traces, including vapors, have been removed, thoroughly wet vacuum the area. Do not flush to sewers. If area of spill is porous, remove as much of the contaminated earth, gravel, etc. as necessary and place in closed containers for disposal.

Special protective equipment:

Only personnel equipped with proper respiratory and skin/eye protection should be permitted in area. See Section 8 for details.

Recommended disposal:

Dispose according to applicable local, state/provincial and federal regulations.

Section 7: Handling and Storage

General Procedures:

Contents may be under pressure. Exercise caution when opening container. If containers have been stored in direct sunlight or heating above the boiling point of the solvent, the container should be cooled to below the boiling point before opening.

Handling:

Use with sufficient ventilation to keep employee exposure below recommended limits. Provide adequate ventilation for storage, handling, and use, especially for enclosed or low spaces. Avoid contact of liquid with eyes and prolonged skin exposure. Do not allow product to contact open flame or electrical heating elements because dangerous decomposition products may form.

Storage:

Store in a cool, well-ventilated area of low fire risk. Storage in subsurface locations should be avoided. If container temperature exceeds boiling range, cool the container before opening.

Section 8: Exposure Controls and Personal Protection

Exposure Guidelines

OSHA Hazardous Components (29CFR 1910.1200)

Exposure limits

CAS#	OSHA ppm	PEL mg/m3	ACGIH ppm	TLV mg/m3
422-56-0	2	2	2	2
507-55-1	2	2	2	2

Manufacturer OEL:

CAS#	TWA/AEL
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422-56-2	50 ppm ¹
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3,3-dichloro-1,1,1,2,2-pentafluoropropane

507-55-1	400 ppm ¹
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1,3-dichloro-1,1,1,2,3-pentafluoropropane

¹ Limit established by manufacturer

² Not established

AEL = Acceptable Exposure Limit established by the manufacturer

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Personal Protective Equipment:

Eyes and Face:

For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin:

The gloves listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection.

Buna
Butyl
Neoprene
Solvex
Viton

Respiratory:

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Other use precautions:

Emergency shower and eyewash facility should be in close proximity.

Section 9: Physical and Chemical Properties

Appearance:	"Water white" clear liquid
Color:	Colorless
Odor:	Faint ethereal odor
pH:	Not applicable
Vapor Pressure:	Not known
Vapor Density (Air=1):	7.0
Boiling Point/Range:	Decomposes 54°C /129°F
Melting Point/Range:	Not available
Specific Gravity at 60°F (15°C):	Not known
Solubility in water:	Insoluble
Molecular Formula:	Not known
Molecular Weight:	Not available
%Volatile by Volume:	100%
Softening Point:	Not applicable
Viscosity:	Not available
VOC:	0 to 0 g/liter (non-exempt VOC)
Octanol/Water Partition Coefficient:	Not determined
Saturated Vapor Concentration:	Not determined
Molecular Weight:	Not determined

Section 10: Stability and Reactivity

Conditions to Avoid: Material is stable but it might decompose if heated.

Stability: Stable

Polymerization: Will not occur.

Hazardous decomposition products: May form hydrochloric and hydrofluoric acids, possible carbonyl halides, when exposed to high temperatures.

Incompatibility (materials to avoid): Oxidizing agents, alkalies, and bases.

Section 11: Toxicological Information

Acute:

Chemical Name	ORAL LD ₅₀ (Rat)	DERMAL LD ₅₀ (Rabbit)	INHALATION LC ₅₀ (Rat)
3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)	> 5000 mg/kg	> 2000 mg/kg	37300 ppm
1,3-Dichloro-1,1,1,2,2,3-pentafluoropropane (HCFC-225ca)	> 5000 mg/kg	> 2000 mg/kg	36800 ppm

Eyes: Moderately to severely irritating

Dermal, LD⁵⁰: Mildly to moderately irritating

Oral LD⁵⁰: Slight to very low toxicity

Inhalation LC⁵⁰: Slight to very low toxicity

Skin Effects: Based on human exposure reports, prolonged and repeated skin contact with Methanol has produced toxic effects including vision effects and death.

Section 12: Ecological Information

Exotoxicity: Invertebrate toxicity: LC₅₀ (30 minutes). Photobacterium phosphoreum = 1540ppm Microtoxicity test.

Environmental data: There is limited information available on the environmental fate and effects of this material. The primary environmental concern for release is the impact on aquatic and terrestrial species. Due care should be taken to avoid the accidental release of this material into the environment.

Section 13: Disposal Considerations

Disposal method: Recover by distillation or remove to permitted waste disposal facility. Comply with federal, state and local environmental control regulations.

For large spills: Contaminated sawdust, vermiculite, or porous surfaces must be disposed of in a permitted hazardous waste management facility. Recovered liquids may be reprocessed or incinerated or must be treated in a permitted hazardous waste management facility.

General Comments: Dispose of in a manner consistent with federal, state, and local environmental control regulations.

Section 14: Transport Information

Proper Shipping Name: Nonhazardous

DOT Hazard Class: Non-Regulated

UN/NA ID: Not Regulated

Packing Group: Not Applicable

Labels: Not Regulated

Marine Pollutant: No information

DOT Status: Not Regulated

Air (ICAO/IATA)

Proper shipping name: Nonhazardous

UN/NA Number: Not regulated

Packing group: Not applicable

Section 15: Regulatory Information

All components of this product are listed on the Toxic Substance Control Act (TSCA).

SARA Section 302/304 Extremely Hazardous Substances: No listed ingredients are present on the 302/304 list.

SARA 311/312 Categories: Immediate/Delayed

SARA Section 313 Toxic Chemicals:

CAS# 422-56-0 is listed in Section 313.

CAS# 507-55-1 is listed in Section 313.

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA): 112 accidental release prevention: No products found

Clean Air Act (CAA): 112 regulated toxic substances: No products found

Clean Air Act (CAA): 112 regulated flammable substances: No products found

Clean Air Act (CAA): Section 602: CAS# 422-56-0 and CAS# 507-55-1 are Class II

Ozone Depletors and are regulated under the accelerated phaseout.

CERCLA (Comprehensive Response, Compensation, and Liability Act)

CERCLA Regulatory Information:

Releases to air, land, or water which exceed the RQ must be reported to the National Response Center [In USA: 1-(800)-424-8802] and to your Local Emergency Planning Committee.

State regulations: No products were found.

No component present in this product at > 0.1% is presently listed as a carcinogen by IARC, NTP, or OSHA.

California Prop. 65:

Proposition 65 requires manufacturers or distributors of consumer products into the State of California to provide a warning statement if the product contains ingredients for which the State has found to cause cancer, birth defects or other reproductive harm. If this product contains an ingredient listed by the State of California to cause cancer or reproductive toxicity, it will be listed below:

No ingredients have been found.

Canada:

WHIMS (Worker Hazardous Materials Information System):

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

WHIMS Class: Class D2B - Toxic Materials

DSL/NDSL

CAS# 422-56-0 is listed on the NDSL list.

CAS# 507-55-0 is listed on the NDSL list.

European Community:

Hazard Symbols: Xn Harmful

Risk Phrases:

R20 Harmful by inhalation

R36/38 Irritating to eyes and skin

Safety Phrases

S24/25 Avoid contact with skin and eyes

Section 16: Other Information

Disclaimer of Liability:

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues or fluids.

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