



Asahiklin AK225

Light Duty Degreaser
1663

Introduction

AK225 Neat is 100% HCFC-225. Completely non-flammable, safe on metals and plastics, the straight AK225 is an excellent solvent for metal degreasing. AK225 offers superior cleaning for LOX applications, video heads, reflector glasses for laser printers, scanners and other equipment that requires optimal cleanliness.

Features / Benefits

- Non-Flammable
- Rapidly Evaporating
- Safe on Most Plastics
- Zero Residue

Physical Properties

Boiling Point	54°C / 129°F
Flash Point (TCC)	None
Evaporation Rate	>1
Surface Tension	
Kauri-Butanol (KB Value)	

Chemical Components

3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)..... (422-56-0)	32-42%-Aerosol 40-50%-Bulk
1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb)..... (507-55-1)	40-50%-Aerosol 50-60%-Bulk
Aerosol - 1,1,1,2-Tetrafluoroethane..... (811-97-2)	18-23%
Carbon Dioxide (Aerosol Propellant)..... (124-38-9)	1-2%

Environmental Policy

Techspray® is committed to developing products to ensure a safer and cleaner environment. We will continue to meet and sustain the regulations of all federal, state and local government agencies.

Packaging and Availability

Asahiklin AK225 may be ordered in the following container sizes:

1663-8S	8 Ounce Aerosol
1663-18S	18 Ounce Aerosol
1663-G	1 Gallon in Glass
1663-5G	55 Pounds in Metal
1663-54G	660 Pounds in Metal

MATERIAL SAFETY DATA SHEET

Finished Product

MSDS Ref. No: ms1663-A

Asahiklin 225

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Asahiklin 225**GENERAL USE:** General Purpose Cleaner/Degreaser**PRODUCT DESCRIPTION:** Asahiklin AK-225**PRODUCT CODE:** 1663/CAN/EUR-8S, 18S

MANUFACTURER

Techspray, L.P.

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt.%</u>	<u>CAS#</u>	<u>EINECS#</u>
3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)	72 - 82	422-56-0	2070169
1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb)	<5	507-55-1	2080769
1,1,1,2-Tetrafluoroethane (HFC-134a)	18 - 23	811-97-2	223770
Carbon dioxide	1 - 2	124-38-9	

EEC LABEL SYMBOL AND CLASSIFICATION



R20 - Harmful by inhalation.

personnel. Seek immediate medical attention.

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.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: None

FLAMMABLE LIMITS: NA to NA

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.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Contain spill with dike to prevent entry into sewers.

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

GENERAL PROCEDURES: Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on adsorbent, 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 sewer. If area of spill is porous, remove as much 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.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Use only in a well ventilated area.

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 point, cool the container before opening.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

		<u>EXPOSURE LIMITS</u>					
		<u>OSHA PEL</u>		<u>ACGIH TLV</u>		<u>Supplier OEL</u>	
		<u>ppm</u>	<u>mg/m³</u>	<u>ppm</u>	<u>mg/m³</u>	<u>ppm</u>	<u>mg/m³</u>
3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)	TWA						50* ^[1]
	STEL						[2]
1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb)	TWA						400*
1,1,1,2-Tetrafluoroethane (HFC-134a)	TWA	NE		NE			1,000

OSHA TABLE COMMENTS:

- * (AEL)=Acceptable Exposure Limit as established by the manufacture
- NOT ESTABLISHED

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 glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection.

Viton, Solvex, Butyl, Buna, Neoprene.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Faint ethereal odor

APPEARANCE: Clear, Colorless liquid

PERCENT VOLATILE: 100 at 20°C (68°F)

VAPOR DENSITY: 7.0 (Air=1)

BOILING POINT: to 54°C (129°F)

SOLUBILITY IN WATER: Insoluble

EVAPORATION RATE: >1 (n-Butyl Acetate=1)

(VOC): 0 to 0 g/L (non-exempt VOC)

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: IMMEDIATE / DELAYED

TITLE III NOTES: Not listed as an Extremely Hazardous Substance.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

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

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: This product is listed on the TSCA Inventory.

CANADA

WHMIS (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 the CPR.

WHMIS CLASS: Class A, Class D2B.

EUROPEAN COMMUNITY

EEC LABEL SYMBOL AND CLASSIFICATION



R20 - Harmful by inhalation.

EEC Harmful - "Xn"

R36/38 - Irritating to eyes and skin.

CALIFORNIA PROPOSITION 65: This product does not contain any chemicals known to the State of California to cause cancer.

COMMENTS: WARNING: Contains 1,1,1,2-tetrafluoroethane (HFC-134a), a greenhouse gas which may contribute to global warming.

16. OTHER INFORMATION

APPROVED BY: Pierce A. Pillon **TITLE:** Chemist

PREPARED BY: Heath Layton

REVISION SUMMARY Revision #: 5

This MSDS replaces the December 02, 2004 MSDS. Any changes in information are as follows:

In Section 16

HMIS Reactivity NFPA Flammability NFPA Health