Material Safety Data Sheet

443-3-2

Manufacturer's Name: SIKKENS AEROSPACE FINISHES DIVISION

Emergency Telephone No.: (213) 320-6800

Address: 20846 S. Normandie Avenue
Torrance, California 90502

Other Information Calls: (213) 320-6800

Signature of Person Responsible for Preparation: Lee A. Dickinson

Date Prepared: December 1985

SECTION 1 - IDENTITY

Common Name: (used on label) Epoxy

Metal Free [X]
Metal Bearing [ ]

Trade Name & Synonyms: 443-3 Series 3:1 With X-304

SECTION 2 - HAZARDOUS INGREDIENTS

Principal Hazardous Component(s) (chemical & common names)	Cas No.	% Wt.	ACGIH Threshold Limit Value PPM	ACGIH Threshold Limit Value MG/M³	OSHA Permissible Exposure Limit PPM	OSHA Permissible Exposure Limit MG/M³	LEL	Vapor Pressure (mm
Flamable Liquid Class IB								
Methyl Ethyl Ketone	78-93-3	20-25	200	590	200	590	1.8	70
Toluene (Skin)	108-88-3	5-10	100	375	—	—	1.2	22
Xylene (Skin)	330-20-7	5-10	100	435	100	435	1.0	7
N-Butyl Acetate	123-86-4	5-10	150	710	150	710	1.7	8
2-Butoxyethanol (Skin)	111-76-2	<5	25	120	50	240	1.1	1
N-Butyl Alchohol (Skin)	71-36-7	<5	C50	C150	100	300	1.7	4

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS (Fire & Explosion Data)

Boiling Range: 176 To 340°F

Specific Gravity (H₂O=1): 1.13

Vapor Pressure (mm Hg): 1 To 70

Percent Volatile by Volume (%): 63

Vapor Density (Air = 1): >1

Evaporation Rate (_____ = 1): Slower Than Ether

Solubility in Water: Negligible

Reactivity in Water: Negligible

Appearance and Odor: Gray liquid Ketone/fruity odor

Flash Point: 23°F TCC

Flammable Limits in Air % by Volume: Lower 1.0 Upper —

Extinguisher Media: Foam, CO_2, Dry Chemicals

Auto-Ignition Temperature: NF

Special Fire Fighting Procedures: Use water spray only to cool surface and protect personnel. Exclude air. Steam and/or water fog may be used.

Unusual Fire and Explosion Hazards: Do not use water. Vapor forms explosive mixture with air between upper and lower explosion limits. Unopened containers may rupture when hot.

SECTION 4 - PHYSICAL HAZARDS

Stability: Unstable ☐ Stable XX — Conditions to Avoid: Storage at High Temperature

Incompatability (Materials to Avoid): Strong Oxidizing Agents, Inorganic Acids, Sparks and Open Flames. Contact with Moisture.

Hazardous Decomposition Products: On Combustion, CO, CO_2

Hazardous Polymerization: May Occur ☐ Will Not Occur XX — Conditions to Avoid: None

SECTION 5 - HEALTH HAZARDS

Threshold Limit Value: See Section II

Signs and Symptoms of Exposure — 1. Acute Overexposure: Headache, Nausea, Dizziness, Skin Irritation.

2. Chronic Overexposure: Breathing Vapors Will Be Irritating to Nose, Throat & Eyes. Dermatitis for Skin.

Medical Conditions Generally Aggravated by Exposure: Dermatitis. Chronic Respiratory Disease.

Chemical Listed as Carcinogen or Potential Carcinogen: None

National Toxicology Program: Yes ☐ No XX

I.A.R.C. Monographs: Yes ☐ No ☒

OSHA: Yes ☐ No ☒

OSHA Permissible Exposure Limit: See Section II

ACGIH Threshold Limit Value: See Section II

Other Exposure Limit Used:

Emergency and First Aid Procedures

1. Inhalation: Remove Victim to Fresh Air, Adminster Oxygen. Consult Physician.

2. Eyes: Flush with Copious Amounts of Water for at Least 15 Minutes. Consult Physicia

3. Skin: Remove Contaminated Clothing. Flush Skin with Water.

4. Ingestion: Consult Physician Immediately. Do Not Induce Vomiting.

SECTION 6 - SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type): Air Supplied, Self Contained Respirator in Confined Areas.

Ventilation: To Keep Contaminated Concentration Below The TLV

Mechanical (General): Explosion Proof Ventilation Equipment.

Special

Other

Protective Gloves: Chemically Resistant Gloves.

Eye Protection: Safety Glasses, Goggles, or Face Shields.

Other Protective Clothing or Equipment: Long Sleeves, Protective Apron, Eye Bath and Safety Shower.

SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken in Handling and Storage: Keep Containers Closed When Not In Use. Do Not Handle or Store Near Flames, Heat, Strong Oxidents. Adequate Ventilation Required.

Other Precautions: Empty Containers May Be Hazardous, Fumes Are Very Flammable. All Equipment Should Be Electrically Grounded. DO NOT WELD EMPTY CONTAINERS.

Steps to be Taken in Case Material is Released or Spilled: Eliminate Source of Ignition. Ventilate Area. Prevent Entering Sewers or Drains. Contain Spill with Sawdust or Other Absorbant. Clean Area.

Waste Disposal Methods: Treat as Hazardous Waste. Consult Chemical Waste Disposal and/or Treatment Entity. Refer to Section VI.

IMPORTANT
Do not leave any blank spaces. If required information is unavailable, unknown, or does not apply, so indicate.

Material Safety Data Sheet

X-304

Manufacturer's Name	SIKKENS AEROSPACE FINISHES DIVISION	Emergency Telephone No.	(213) 320-6800
Address	20846 S. Normandie Avenue Torrance, California 90502	Other Information Calls	(213) 320-6800
Signature of Person Responsible for Preparation	Antonio U. Sebastian	Date Prepared	November, 1985

SECTION 1 - IDENTITY

Common Name: (used on label) Amine Catalyst

Metal Free [X]
Metal Bearing [ ]

Trade Name & Synonyms Curing Solution for 400-3 Series

SECTION 2 - HAZARDOUS INGREDIENTS

Principal Hazardous Components(s) (chemical & common names)	Cas No.	% Wt.	ACGIH Threshold Limit Value PPM	ACGIH Threshold Limit Value MG/M³	OSHA Permissible Exposure Limit PPM	OSHA Permissible Exposure Limit MG/M³	LEL	Vapor Pressure (mm Hg)
Flammable Liquid Class IB								
Methyl Ethyl Ketone	78-93-3	25-30	200	590	200	590	1.8	70
n Butyl Alcohol (Skin)	71-36-3	20-25	C50	C150	100	300	1.7	4
n Butyl Acetate	123-86-4	20-25	150	710	150	710	1.7	8
2 Butoxyethanol (Skin)	111-76-2	10-15	25	120	50	240	1.1	1
Toluene (Skin)	108-88-3	5-10	100	375	--	--	1.2	22
Diethylene Triamine	111-40-0	<1	1	4	--	--	1.4	<1

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS (Fire & Explosion Data)

Boiling Range 176 to 340° F

Specific Gravity (H₂O=1) 0.85

Vapor Pressure (mm Hg) 1 to 70

Percent Volatile by Volume (%) 75

Vapor Density (Air = 1) >1

Evaporation Rate (_____ = 1) Slower than ether

Solubility in Water Negligible

Reactivity in Water Negligible

Appearance and Odor Straw Clear, Amine, Ketone odor

Flash Point 23°F. TCC

Flammable Limits in Air % by Volume: Lower 1.0, Upper -

Extinguisher Media Foam, CO_2, Dry Chemicals

Auto-Ignition Temperature NE

Special Fire Fighting Procedures Use water spray only to cool surface and protect personnel. Exclude air. Steam and/or water fog may be used.

Unusual Fire and Explosion Hazards Do not use water. Vapor forms explosive mixture with air between upper and lower explosion limits. Unopened containers may rupture when hot.

SECTION 4 - PHYSICAL HAZARDS

Stability: Unstable ☐ / Stable ☒ — Conditions to Avoid: Storage at high temperature.

Incompatability (Materials to Avoid): Strong oxidizing agents. Inorganic acids. Sparks and open flames.

Hazardous Decomposition Products: On combustion CO, CO_2, Oxides of nitrogen.

Hazardous Polymerization: May Occur ☐ / Will Not Occur ☒ — Conditions to Avoid: None

SECTION 5 - HEALTH HAZARDS

Threshold Limit Value: See Section II

Signs and Symptoms of Exposure — 1. Acute Overexposure: Headache, nausea, dizziness, skin irritation.

2. Chronic Overexposure: Severe burning at the eyes, nose throat and skin irritation.

Medical Conditions Generally Aggravated by Exposure: Chronic respiratory disease. Sensitive skin may develop dermatitis.

Chemical Listed as Carcinogen or Potential Carcinogen: None

National Toxicology Program: Yes ☐ No ☒

I.A.R.C. Monographs: Yes ☐ No ☒

OSHA: Yes ☐ No ☒

OSHA Permissible Exposure Limit: See Section II

ACGIH Threshold Limit Value: See Section II

Other Exposure Limit Used:

Emergency and First Aid Procedures

1. Inhalation: Remove victim to fresh air, administer oxygen. Consult physician.

2. Eyes: Flush with copious amounts of water for at least 15 minutes. Consult physician.

3. Skin: Remove contaminated clothing. Flush skin with water.

4. Ingestion: Consult physician immediately. Do Not Induce Vomiting.

SECTION 6 - SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type): Air supplied, self contained respirator in confined areas.

Ventilation: To keep contaminated concentration below the TLV

Mechanical (General): Explosion proof ventilation

Special

Other: equipment.

Protective Gloves: Chemically resistant.

Eye Protection: Safety glasses, goggles or face shield.

Other Protective Clothing or Equipment: Long sleeves, protective apron, eye bath and safety shower.

SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken in Handling and Storage: Keep containers closed when not in use. Do not handle or store near flames, heat, strong oxidents. Adequate ventilation required.

Other Precautions: Empty containers may be hazardous; fumes are very flammable. all equipment should be electrically grounded. DO NOT WELD EMPTY CONTAINERS.

Steps to be Taken in Case Material is Released or Spilled: Eliminate source of ignition. Ventilate area. Prevent from entering sewers or drains. Contain spills with sawdust or other absorbant. Clean area.

Waste Disposal Methods: Treat as hazardous waste. Consult chemical waste disposal and/or treatment entity. Refer to Section VI.

IMPORTANT
Do not leave any blank spaces. If required information is unavailable, unknown, or does not apply, so indicate.