

Applied Poleramic, Inc.

6166 Egret Court
Benicia, CA 94510

8am to 5pm Phone: (707) 747-6738
24-hour Health/Environmental Emergency Phone: (800) 424-9300



Composite Development

Effective Date: 03/02/02

MATERIAL SAFETY DATA SHEET

MSDS No # : SC-15A

SECTION 1 – PRODUCT IDENTIFICATION

Trade Name: SC-15, PART A

Chemical Family: Epoxy Resin

Intended Use or Product Type: intended to be used with part B component

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS#</u>	<u>%</u>
Diglycidylether of Bisphenol A	001675-54-3	60-70%
Aliphatic Diglycidyl Ether	017557-23-2	10-20%
Epoxy Toughener	T.S.	10-20%

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200) in addition, other substances not Hazardous per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

SECTION 3 – HAZARDS IDENTIFICATION

EYES: Minor transient irritation. Possible minor temporary corneal injury.

SKIN CONTACT: May cause moderate skin irritation. Sensitizer - may cause allergic skin reaction which can be severe in certain individuals. Not likely to be absorbed in toxic amounts.

INGESTION: Low acute oral toxicity

INHALATION: Heating can generate vapors that could cause headaches, nausea, dizziness, and respiratory irritation if inhaled.

CARCINOGENICITY: This product contains less than .1% of any substance, which is listed as a carcinogen by NTP, IARC, or OSHA.

NFPA HAZARD RATING

4 = EXTREME	HEALTH	1
3 = HIGH	FIRE	1
2 = MODERATE	REACTIVITY	0
1 = SLIGHT	SPECIFIC	-
0 = INSIGNIFICANT		

SECTION 4 – FIRST AID

EYES: Flush eyes with plenty of water for 15 minutes and get medical attention.

SKIN: Remove contaminated clothing and wipe excess from skin. Wash with soap and water immediately.

INGESTION: Give more than two glasses of water and seek medical attention.

INHALATION: Remove to fresh air if effect occurs. Seek medical attention.

SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT: 410°F, 210°C

METHOD USED: PMCC

FLAMMABLE LIMITS

LFL: not applicable

UFL: not applicable

EXTINGUISHING MEDIA: foam, CO₂, dry chemical

FIRE AND EXPLOSION HAZARDS: none

FIRE-FIGHTING EQUIPMENT: Wear positive pressure self-contained breathing apparatus.

SECTION 6 – ACCIDENTAL RELEASE MEASURES (see section 15 for regulatory information)

ACTION TO TAKE FOR SPILLS/LEAKS: Soak up in absorbent material and collect in suitable containers. Residual may be removed using steam or hot soapy water. Wear protective gear during clean up.

SECTION 7 – HANDLING AND STORAGE

This material may cause sensitization. Do not get in eyes, on skin or clothing. Do not allow contaminated clothing to contact skin. Avoid contact with vapors or fumes.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION: Local exhaust ventilation recommended if generating vapor, mist, or dust. If ventilation is not available, use MSHA or NIOSH approved respirator.

RESPIRATORY PROTECTION: None normally necessary. An organic vapor respirator should be considered in areas where spray mist or heated vapors are present.

SKIN PROTECTION: For operations where contact can occur, wear impervious gloves (Neoprene).

EYE PROTECTION: Use chemical goggles.

OTHER PROTECTIVE EQUIPMENT: For operations where contact can occur, coveralls, apron, and rubber foot coverings are recommended. A safety eye wash facility should be available.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: not applicable

VAPOR PRESSURE: not applicable

VAPOR DENSITY: not applicable

SOLUBILITY IN WATER: none

SPECIFIC GRAVITY: 1.20

APPEARANCE: straw colored liquid

ODOR: faint epoxy odor

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: (CONDITIONS TO AVOID) Excess heat over long periods of time degrades resin.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Can react vigorously with strong Lewis acid, strong Lewis base, primary and secondary amines.

HAZARDOUS DECOMPOSITION PRODUCTS: The by-products expected in incomplete pyrolysis or combustion of epoxy resins are mainly phenolics, carbon monoxide and water. The thermal decomposition products of epoxy resins therefore should be treated as potentially hazardous substances, and appropriate precautions should be taken.

HAZARDOUS POLYMERIZATION: Will not occur by itself, but masses more than 1 pound of product plus aliphatic amine will cause irreversible polymerization with considerable heat buildup.

SECTION 11 – TOXICOLOGICAL INFORMATION

Low acute oral toxicity: LD₅₀ (rat) greater than 4.5 g/kg.

SECTION 12 – ECOLOGICAL INFORMATION

ADDITIONAL INFORMATION: NO ECOLOGICAL INFORMATION AVAILABLE

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: DISPOSE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

SECTION X11 – TRANSPORT INFORMATION

DOT: PROPER SHIPPING NAME:
HAZARD CLASS:
IDENTIFICATION NUMBER:
LABEL REQUIRED:

SECTION 15 – REGULATORY INFORMATION

STATUS ON SUBSTANCE LIST: The concentrations shown in this document are maximum or ceiling levels (expressed in weight %, unless otherwise specified) to be used for regulations. Trade Secrets are indicated by "TS".

FEDERAL EPA

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, and LIABILITY ACT of 1980 (CERCLA): requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQ's) in 40 CFR 302.4 . Components present in this product at level, which could require reporting under the statute are:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% By Weight</u>	<u>RQ</u>
NONE			

SUPERFUND AMENDMENTS and REAUTHORIZATION ACT of 1986 (SARA) TITLE III:

Sections 301-304 require emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (Rqs) in 40 CFR 355. Components present in this product at a level, which could require reporting under this statute are:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% By Weight</u>	<u>RQ</u>
NONE			

Sections 311-312 require products be reviewed and applicable EPA Hazard Definitions be identified and made known.

EPA HAZARD CLASSIFICATIONS:

Acute Hazard	Chronic Hazard	Fire Hazard	Pressure Hazard	Reactive Hazard
<i>yes</i>	<i>no</i>	<i>no</i>	<i>no</i>	<i>no</i>

Section 313 requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDS's that are copied and distributed for this material. Components present in this product at level, which could require reporting under the statute are:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% By Weight</u>	<u>RQ</u>
NONE			

If you are unsure if you must report more information, call the EPA Emergency Planning and Right-To-Know Hot Line : 800-535-0202 or 202-479-2449.

SECTION 16 – OTHER INFORMATION

The information herein is given in good faith, but no warranty expressed or implied is made. APPLIED POLERAMIC, INC. urges suppliers and users of this company to evaluate its suitability and compliance with local regulations as APPLIED POLERAMIC, INC. cannot foresee the nature of the final application or final location of usage.

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Composite Development

Effective Date: 03/19/01

MATERIAL SAFETY DATA SHEET

MSDS No #: SC-15B

SECTION 1 – PRODUCT IDENTIFICATION

Trade Name: SC-15, Part B, SC-15F, Part B, 228-2, Part B

Chemical Family: Epoxy Hardener

Intended Use or Product Type: intended for use with Part A

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS#</u>	<u>%</u>
Cycloaliphatic Amine	694-83-7	65-90%
Proprietary Amine	T.S.	10-35%

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SECTION 3 – HAZARDS IDENTIFICATION

WARNING STATEMENT

CORROSIVE - CAUSES EYE AND SKIN BURNS
HARMFUL OR FATAL IF SWALLOWED
HARMFUL IF ABSORBED THROUGH SKIN
MAY CAUSE RESPIRATORY TRACT IRRITATION
MAY CAUSE LUNG INJURY IF SWALLOWED AND ASPIRATED

EYES: Vapor especially when heated can cause irritation, redness, tearing, blurred vision; liquid can cause severe or permanent eye damage.

SKIN CONTACT: Causes severe irritation and burns. May cause allergic skin reaction. Prolonged or widespread skin contact may result in absorption of potentially harmful amount of material.

INGESTION: Toxic by ingestion. Causes burning of mouth, throat, and stomach with abdominal and chest pain, nausea, vomiting, diarrhea, and thirst. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

INHALATION: Heating can generate vapors that could cause irritation of respiratory tract. Prolonged overexposure may result in lung damage.

CARCINOGENICITY: This product contains less than .1% of any substance, which is listed as a carcinogen by NTP, IARC, or OSHA.

NFPA HAZARD RATING

4 = EXTREME	HEALTH	3
3 = HIGH	FIRE	1
2 = MODERATE	REACTIVITY	0
1 = SLIGHT	SPECIFIC	-
0 = INSIGNIFICANT		

SECTION 4 – FIRST AID

EYES: Flush eyes with large amounts of water for 15 minutes, lifting upper and lower lids occasionally. Get medical attention immediately. If physician is not immediately available, continue flushing with water. Do not use chemical antidote.

SKIN: Immediately flush skin with large amounts of running water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse.

INGESTION: If patient is conscious and can swallow, give two glasses of water (16 oz.). Do not induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious or convulsing person.

INHALATION: Remove to fresh air if effect occurs. If burning sensation develops in throat or chest, or shortness of breath occurs, get immediate medical attention.

SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT: > 200°F
METHOD USED: PMCC
FLAMMABLE LIMITS

LFL: not data
UFL: not data

EXTINGUISHING MEDIA: foam, CO₂, dry chemical. Water or foam may cause frothing which can be violent, especially if sprayed into containers of hot burning liquid.

FIRE AND EXPLOSION HAZARDS: Toxic vapors may be formed (Hydrogen Cyanide)

FIRE-FIGHTING EQUIPMENT: Wear positive pressure self-contained breathing apparatus.

SECTION 6 – ACCIDENTAL RELEASE MEASURES (see section 15 for regulatory information)

ACTION TO TAKE FOR SPILLS/LEAKS: Ventilate area. Avoid breathing vapor. Use self-contained breathing apparatus for large spills or confined areas. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes, or clothing.

SECTION 7 – HANDLING AND STORAGE

Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

Eye wash and safety shower should be available when this product is handled or used.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION: Local exhaust ventilation recommended if generating vapor, mist, or dust. If ventilation is not available, use MSHA or NIOSH approved respirator.

RESPIRATORY PROTECTION: None normally necessary. Use respirator approved by MSHA or NIOSH if spray, mist or heated vapors are generated.

SKIN PROTECTION: Wear protective gloves such as: Neoprene or BUNA-N. Impervious suits, gloves, and rubber boots are recommended when handling large quantities.

EYE PROTECTION: Use chemical goggles and full face shield are advised. Do not wear contact lenses.

OTHER PROTECTIVE EQUIPMENT: For operations where contact can occur, coveralls, apron, and rubber foot coverings are recommended. A safety eye wash facility should be available.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: not applicable

VAPOR PRESSURE: not applicable

VAPOR DENSITY: heavier than air

SOLUBILITY IN WATER: none

SPECIFIC GRAVITY: 1.05

APPEARANCE: straw colored liquid

ODOR: ammonia odor

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: (CONDITIONS TO AVOID) Stable

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Can react vigorously with acids. Do not add or formulate with nitrites.

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic levels of ammonia, combustion products of nitrogen, carbon monoxide, carbon dioxide, irritating aldehydes and ketones may be formed on burning in limited air supply.

HAZARDOUS POLYMERIZATION: Will not occur by itself.

SECTION 11 – TOXICOLOGICAL INFORMATION

HAS NOT BEEN DETERMINED

SECTION 12 – ECOLOGICAL INFORMATION

ADDITIONAL INFORMATION: NO ECOLOGICAL INFORMATION AVAILABLE

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: DISPOSE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

SECTION X11 – TRANSPORT INFORMATION

DOT:

PROPER SHIPPING NAME: Corrosive Liquid, NOS (Alkyl Polyamine)
HAZARD CLASS: Corrosive Material, 8
IDENTIFICATION NUMBER: UN 1760, PG III
LABEL REQUIRED: Corrosive

SECTION 15 – REGULATORY INFORMATION

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