

FOR COATINGS, RESINS, AND RELATED MATERIALS  
(APPROVED BY THE U.S. DEPARTMENT OF LABOR AS  
'ESSENTIALLY SIMILAR' TO FORM OSHA-20)  
(MEETS REQUIREMENTS OF CFR 29 PART 1910.1200,  
OSHA'S HAZARD COMMUNICATION STANDARD) NPCA 1-84

SECTION 1 - MANUFACTURER AND PRODUCT INFORMATION

CHEMICAL PRODUCT IDENTIFICATION:

PRODUCT ID . . . . . : F158-AA14 5G  
PRODUCT CLASS . . . . . :  
TRADE NAME . . . . . :  
FORMULA ID . . . . . : F158-AA14  
FORMULA VERSION NUMBER . . . . . : 1  
MSDS PREPARATION DATE . . . . . : 01-22-98  
MANUFACTURER IDENTIFICATION:  
NAME . . . . . : TNE MEC COMPANY, INC.  
ADDRESS . . . . . : 123 WEST 23RD AVENUE  
NORTH KANSAS CITY, MO. 64116-3064  
TELEPHONE . . . . . : 816-474-3400  
EMERGENCY TELEPHONE . . . . . : 816-474-1425

SECTION 2 - HAZARDOUS INGREDIENTS

1 TITANIUM DIOXIDE

CAS# 13463-67-7  
TITANIUM DIOXIDE (TOTAL DUST)  
PCT BY WT: 6.7270  
EXPOSURE LIMIT:  
ACGIH TVL/TWA: 0010.000 MG/M3  
OSHA PEL/TWA: 0010.000 MG/M3

2

SOLUBLE BARIUM COMPOUND

PCT BY WT: 9.9660  
EXPOSURE LIMIT:  
ACGIH TVL/TWA: 0000.500 MG/M3  
OSHA PEL/TWA: 0010.000 MG/M3

3 CALCIUM MAGNESIUM CARBONATE

CAS# 16389-88-1  
DOLOMITE  
PCT BY WT: 22.6140  
EXPOSURE LIMIT:  
ACGIH TVL/TWA: 0010.000 MG/M3  
OSHA PEL/TWA: 0015.000 MG/M3

4 WHITE SPIRITS

CAS# 8052-41-3  
MINERAL SPIRITS, AS STODDARD SOLVENT  
PCT BY WT: 2.0550 VAPOR PRESSURE: 2.700 MMHG @ 68F  
EXPOSURE LIMIT:  
ACGIH TVL/TWA: 0100.000 PPM

TNEMEC COMPANY, INC.  
MATERIAL SAFETY DATA SHEET

F158-AA14 5G

-----  
OSHA PEL/TWA: 0100.000 PPM  
-----

5 BUTYL CARBITOL  
CAS# 112-34-5  
DIETHYLENE GLYCOL MONOBUTYL ETHER  
PCT BY WT: 1.4130 VAPOR PRESSURE: .020 MMHG @ 68F  
EXPOSURE LIMIT:  
-----

\*\*\*\*\*  
This substance contains a material classified as a hazardous air  
pollutant.  
\*\*\*\*\*

\*\*\*\*\*  
This product contains no reported carcinogens or suspected  
carcinogens.  
\*\*\*\*\*

\*\*\*\*\*  
This product contains pigment dusts which may be released when subjected to  
abrasive blasting, sanding, or grinding.  
\*\*\*\*\*

The information contained in this section is considered confidential  
and proprietary and should be used only for safety and health purposes.  
-----

SECTION 3 - HEALTH HAZARD INFORMATION  
-----

EMERGENCY OVERVIEW:

POTENTIAL HEALTH EFFECTS:

EYE:

Moderate irritation.  
Redness, tearing, blurred vision.

SKIN:

Moderate irritation, drying of skin, defatting and possible  
dermatitis.  
Discoloration.

INHALATION - OVEREXPOSURE TO SOLVENT VAPORS OR SPRAY MIST:

Nasal and respiratory irritation, anesthetic effects, dizziness,  
possible unconsciousness and asphyxiation, stupor, weakness,  
fatigue, nausea, and headache.

INHALATION - OVEREXPOSURE TO FREE PIGMENT DUST:

Coughing, wheezing, shortness of breath, restricted nasal passages,  
lung injury.

INGESTION:

Gastrointestinal irritation, nausea, vomiting, diarrhea, death,  
aspiration into the lungs which can be fatal.

CHRONIC EFFECTS:

NOTICE: Reports have associated repeated and prolonged occupational  
overexposure to solvents with permanent brain and nervous system  
damage. Intentional misuse by deliberately concentrating and  
inhaling the vapors may be harmful or fatal.

TARGET ORGANS:

Can cause eye irritation.

TNEMEC COMPANY, INC.  
MATERIAL SAFETY DATA SHEET

F158-AR14 5G

- Can cause skin irritation.
- Can cause gastrointestinal tract irritation.
- Can cause respiratory tract irritation.
- Can cause kidney damage.
- Can cause nervous system effects.

OTHER:

This product when mixed with other components acquires the hazards of all components.

PRIMARY ROUTES OF ENTRY:

Dermal and Inhalation.

PROPOSITION 65:

Pigments and/or other raw materials present in this product contain trace amounts of a chemical or chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 4 - FIRST AID MEASURES

EYE CONTACT:

Flush immediately with large amounts of clean water under low pressure for at least 15 minutes. Consult a physician.

SKIN CONTACT:

Wash affected area with soap and water. Remove contaminated clothing. Dispose of or launder accordingly. Consult a physician if skin irritation persists.

INHALATION:

Remove affected individual to fresh air. Treat symptomatically. If breathing is difficult, administer oxygen. If breathing has stopped give artificial respiration. Consult a physician.

INGESTION:

Drink 1 or 2 glasses of water to dilute. Do not induce vomiting. Consult a physician or poison control center IMMEDIATELY. Treat symptomatically.

NOTE TO PHYSICIAN:

SECTION 5 - FIRE AND EXPLOSION HAZARD DATA

FIRE AND EXPLOSIVE PROPERTIES OF THE CHEMICAL:

Flammability Classification . . . . .	:	
Flashpoint . . . . .	:	-N/A.00
Explosion Level . . . . .	:	Low - .80
		High - -N/A
Flammability Limits . . . . .	:	Lower - -N/A
		Higher - -N/A
Auto-ignition Temperatures . . . . .	:	-N/A

EXTINGUISHING MEDIA:

Foam, carbon dioxide, and dry chemical.

FIRE-FIGHTING PROCEDURES AND EQUIPMENTS:

Keep away from heat, open flames, sparks, and areas where static charge may be generated. Do not apply to hot surfaces due to

-----  
TNEVEC COMPANY, INC.  
MATERIAL SAFETY DATA SHEET

F158-RA14 5G

-----  
possible fire and explosion risk. For closed containers, pressure build-up and possible explosion might occur due to extreme heat exposure. Solvent vapors are heavier than air and may travel considerable distance to a source of ignition and flash back. Water may be used to cool unruptured containers. Wear self-contained breathing apparatus with a full facepiece operated in pressure-demand or other positive pressure mode to prevent inhalation of hazardous decomposition products. Use appropriate extinguishing media to control fire. Water may cause violent frothing if sprayed directly into containers of burning liquid.

-----  
SECTION 6 - SPILL OR LEAK PROCEDURES  
-----

## CLEAN-UP:

Remove all sources of ignition. Spills may be collected with inert, absorbent material for proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer absorbent material to suitable containers for proper disposal.

-----  
SECTION 7 - SPECIAL PRECAUTIONS  
-----

## HANDLING AND STORAGE:

Store in dry area. Keep closures tight and upright to prevent leakage. Do not store in high temperature areas or near fire or open flame. Refer to product data sheet for recommended storage temperatures.

## SPECIAL COMMENTS:

Prevent prolonged breathing of airborne contaminants such as vapor, spray mists, or dusts. Prevent contact with skin and eyes. Do not take internally. Keep out of reach of children. Do not reuse or alter containers without proper industrial cleaning. Do not weld or flame cut empty, uncleaned containers due to potential fire and explosion hazard. Consult product data sheet for proper application instructions.

-----  
SECTION 8 - SAFE HANDLING AND USE INFORMATION  
-----

## HYGENIC PRACTICES:

Wash hands and other contaminated skin areas with warm soap and water before eating.

## EYE PROTECTION:

Use chemical resistant splash type goggles.

## RESPIRATORY PROTECTION:

Respiratory protective devices must be used when engineering and administration controls are not adequate to maintain Threshold Limit Values (TLV) and Permissible Exposure Limits (PEL) of airborne contaminants below the listed values for those hazardous ingredients

TNEMEC COMPANY, INC.  
MATERIAL SAFETY DATA SHEET

F158-AA14 5G

identified in Section II of this MSDS. Observe OSHA regulations for respirator use (CFR 29, 1910.134) whenever a respirator is used. Particulate, chemical cartridge, air purifying half-mask respirators can be used within certain limitations; consult the respirator manufacturer for specific uses and limitations. Where airborne contaminant concentrations are unknown, the use of a NIOSH/MSHA approved fresh-air supplied respirator is mandatory.

## OTHER PROTECTION:

Use Chemical resistant gloves.

Use chemical resistant coveralls or apron to protect against skin and clothing contamination.

Use protective cream where skin contact is likely.

## VENTILATION:

Sufficient ventilation, in volume and pattern, should be provided through both local and general exhaust to keep the air contaminant concentration below current applicable OSHA Permissible Exposure Limits (PEL) and ACGIH's Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

Heavier than air solvent vapors should be removed from lower levels of work area due to potential explosion hazard and all ignition sources (non-explosion proof equipment) should be eliminated if flammable mixtures will be encountered.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure . . . . .	:	2.700
Vapor Density . . . . .	:	-N/A
Boiling Range . . . . .	:	Lower - 310.00 °F Higher - 455.00 °F
Formula Weight per Volume . . . . .	:	11.79130 LB/GL LB
VOC IN LBS PER GALLON . . . . .	:	.7680
Evaporation Rate . . . . .	:	.0000 (Ether = 1) (Ether
% Volatile by Weight . . . . .	:	3.484
% Volatile by Volume . . . . .	:	5.830

## SECTION 10 - STABILITY AND REACTIVITY

## INCOMPATIBILITIES:

Strong oxidizing agents.

Acids.

## DECOMPOSITION:

Carbon monoxide, carbon dioxide, hydrocarbon fragments

## CONDITIONS TO AVOID:

Heat, sparks, open flames.

## POLYMERIZATION:

Will not occur.

## STABILITY:

TNEMEC COMPANY, INC.  
MATERIAL SAFETY DATA SHEET

F158-AA14 5G

Stable.

SECTION 11 - TOXICOLOGICAL INFORMATION

OTHER:

Consult various toxicology references such as NIOSH's "Registry of Toxic Effects of Chemical Substances" or Sax's "Dangerous Properties of Industrial Chemicals" for specific toxicity information regarding hazardous ingredients.

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Dispose of in accordance with Federal, state, and local regulations regarding pollution.

SECTION 14 - TRANSPORT INFORMATION

DOT HAZARD CLASS .....

TRANSPORTATION ASSISTANCE:

SECTION 15 - REGULATORY INFORMATION

FEDERAL REGULATIONS:

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

SOLUBLE BARIUM COMPOUND

PCT BY WT: 9.9560

DIETHYLENE GLYCOL MONOBUTYL ETHER

CAS# 112-34-5 PCT BY WT: 1.4130

STATE REGULATIONS: