

55002; 55003

55101; 55102

55103; 55104;
55105; 55107

MATERIAL SAFETY DATA SHEET

55113;
55114;
55115;

55108; 55110
55111; 55112

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

55116;
55117

SECTION I

MANUFACTURER'S NAME NASCO		EMERGENCY TELEPHONE NO. 414/563-2446
ADDRESS (Number, Street, City, State, and ZIP Code) 901 Janesville Ave., Fort Atkinson, Wisconsin 53538		
CHEMICAL NAME AND SYNONYMS Ethylene glycol; 1,2-ethanediol		TRADE NAME AND SYNONYMS NASCO-GUARD
CHEMICAL FAMILY Glycols	FORMULA 25% ethylene glycol-water solution	

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
Preservatives:		
Formaldehyde (always present)	0.5	
Phenol (may be present)	0.5	

SECTION III - PHYSICAL DATA

BOILING POINT (°F.) (at Sea Level)	214	SPECIFIC GRAVITY (H ₂ O=1) (at 70° F)	1.033
VAPOR PRESSURE (mm Hg.) (at 70° F)	19	PERCENT. VOLATILE BY VOLUME (%)	nil
VAPOR DENSITY (AIR=1) (100% glycol)	2.14	EVAPORATION RATE (butyl acetate =1)	< 0.01
SOLUBILITY IN WATER	complete		
APPEARANCE AND ODOR	Colorless, sweet tasting, liquid with mild odor		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA Lower Upper

FLASH POINT (Method used)	(ASTM=D92)	FLAMMABLE LIMITS	Lel	Uel
240° F. for 100% ethylene glycol		% Volume in air	3.2	15.3
EXTINGUISHING MEDIA	For 100% ethylene glycol use water spray, dry chemical or universal			
SPECIAL FIRE FIGHTING PROCEDURES	NONE		foam	
USUAL FIRE AND EXPLOSION HAZARDS	NONE			

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

For Vapors - 50 ppm, for particles - 10mg/m³

EFFECTS OF OVEREXPOSURE

Swallowing-abdominal pain, dizziness, lumbar pain, central nervous system depression inhalation-irritation of throat, headache, eye contact-mist may irritate eyes.

EMERGENCY AND FIRST AID PROCEDURES

Swallowing-if conscious, induce vomiting, call physician immediately.

Inhalation - remove to fresh air

Eyes - Flush with water

SECTION VI - REACTIVITY DATA

STABILITY

UNSTABLE

CONDITIONS TO AVOID

STABLE

X

INCOMPATIBILITY (Materials to avoid)

HAZARDOUS DECOMPOSITION PRODUCTS

Burning may produce carbon monoxide and /or carbon dioxide

HAZARDOUS POLYMERIZATION

MAY OCCUR

CONDITIONS TO AVOID

WILL NOT OCCUR

X

NONE

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Flush small spills with water

collect larger spills for disposal

WASTE DISPOSAL METHOD

100% glycol may be mixed with flammable solvent and burned

in a furnace where Federal, State and local regulations permit.

Glycol-treated specimens may be incinerated.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

Air-supplied mask in high vapor concentrations

VENTILATION

LOCAL EXHAUST

SPECIAL

Needed where concentrated vapors are vented

MECHANICAL (General)

OTHER

General room ventilation is adequate for dissection

PROTECTIVE GLOVES

EYE PROTECTION

Not necessary for handling specimens not necessary for viewing specimens

OTHER PROTECTIVE EQUIPMENT

None

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

DO NOT DRINK LIQUID

OTHER PRECAUTIONS

NONE