SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:.....PRO-SET® ACE-265 Hardener
APPLICABLE PRODUCT CODES: ACE-265, ACE-265-1, ACE-265-2, ACE-265-4, 265-G
CHEMICAL FAMILY:.....Polyamine mixture.
INTENDED PRODUCT USES:.....Curing agent for epoxy resins.
PRODUCT RESTRICTIONS:.....None identified.
SDS VERSION: ACE-265-2019a

MANUFACTURER:
Gougeon Brothers, Inc.
100 Patterson Ave.
Bay City, MI 48706, U.S.A.
Phone: 888-377-6738 or 989-684-7286
www.prosetepoxy.com

EMERGENCY TELEPHONE NUMBERS (24 HRS):
Transportation
CHEMTREC:..... 800-424-9300 (U.S.)
703-527-3887 (International)
Non-transportation
Poison Hotline: 800-222-1222

2. HAZARDS IDENTIFICATION

Classification of Substance or Mixture

Acute Toxicity, Oral, Category 4
Skin corrosion/irritation, Category 1B
Skin sensitizer, Category 1
Eye damage/irritation, Category 1
Acute aquatic toxicity, Category 3
Chronic aquatic toxicity, Category 3

Label Elements

Hazard Pictogram(s):

Signal Word:
DANGER

Hazard Statements:
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H317 May cause an allergic skin reaction
H412 Harmful to aquatic life with long lasting effects

Precautionary Statements:
Prevention
P260 Do not breathe dust/fume/gas/mist/vapors/spray
P264 Wash hands thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P272 Contaminated work clothing should not be allowed out of the workplace
P273 Avoid release to the environment
P280 Wear protective gloves/protective clothing/eye protection/face protection
Response
P301 + P312 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse or wash skin with soap and water (or shower).
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call POISON CONTROL CENTER or doctor
P313 + P333 If irritation or rash occurs: Get medical attention/advice
P362 + P364 Take off contaminated clothing and wash it before reuse
Storage
P405 Store locked up.
Disposal
P501 Dispose of contents and container according to local, state, national and International regulations

Other Hazards
None known.

3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

INGREDIENT NAME	CAS #	CONCENTRATION (%)
Trimethylhexane-1,6-diamine	25620-58-0	10-30
Benzyl alcohol	100-51-6	10-30
Isophoronediamine	2855-13-2	10-30
Polymer of epichlorohydrin, bisphenol A, and trimethylhexane-1,6-diamine	111850-23-8	10-30
Decanedioic acid, 1, 10-bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester	41556-26-7	0.1-1.5

The exact chemical identity and/or exact percentage (concentration) of each ingredient may be held as confidential business information (CBI). Any ingredient not disclosed in this section may have been determined not to be hazardous to health or the environment, or it may be present at a level below its disclosure threshold.

4. FIRST AID MEASURES

FIRST AID FOR EYES..... SYMPTOMS: Causes eye burns and eye damage. RESPONSE: Flush immediately with water for at least 15 minutes. Remove contact lenses if present and easy to do. Immediately call a POISON CONTROL CENTER or doctor.

FIRST AID FOR SKIN..... SYMPTOMS: Causes skin burns, redness and irritation. May cause allergic skin reaction and sensitization. RESPONSE: Immediately wash skin with soap and water. Immediately call a POISON CONTROL CENTER or doctor.

FIRST AID FOR INHALATION..... SYMPTOMS: Can cause respiratory irritation. RESPONSE: Remove to fresh air if effects occur and keep comfortable for breathing. Consult a physician if symptoms develop and persist.

FIRST AID FOR INGESTION..... SYMPTOMS: May cause gastrointestinal irritation or ulceration. May cause burns of the mouth and throat. RESPONSE: Rinse mouth with water. DO NOT induce vomiting. If vomiting should occur, keep airway clear. Immediately call POISON CONTROL CENTER or doctor.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: ..... SUITABLE: Foam, carbon dioxide (CO_2), dry chemical. NON-SUITABLE: Direct water stream.

FIRE AND EXPLOSION HAZARDS: ..... During a fire, smoke may contain the original materials in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include, but are not limited to: oxides of nitrogen, carbon monoxide, carbon dioxide, volatile amines, ammonia, nitric acid, nitrosamines. When mixed with sawdust, wood chips, or other cellulosic material, spontaneous combustion can occur under certain conditions. Heat is generated as the air oxidizes the amine. If the heat is not dissipated quickly enough, it can ignite the sawdust.

SPECIAL FIRE FIGHTING PROCEDURES: ..... Use full-body protective gear and a self-contained breathing apparatus. Use of water may generate toxic aqueous solutions. Do not allow water run-off from fighting fire to enter drains or other water courses.

6. ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES: ..... Keep unnecessary and unprotected personnel from entering area. Use appropriate safety and personal protective equipment as indicated in Section 8.

MITIGATION AND CLEAN UP PROCEDURES: ..... Stop leak without additional risk. Isolate area. Dike and absorb with inert material (*e.g.*, sand) and collect in a suitable, closed container. Do not use sawdust, wood chips or other cellulosic materials to absorb the spill, as the possibility for spontaneous combustion exists. Warm, soapy water may be used to clean residual.

ENVIRONMENTAL PRECAUTIONS:..... Prevent from entering into soil, ditches, sewers, waterways and groundwater. See Section 12 for environmental impact information.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE (min./max.): ..... 40°F (4°C) / 90°F (32°C).

STORAGE:..... Store in cool, dry place away from high temperatures and moisture. Keep container tightly closed. Store in a secure location with restricted access or store locked up.

HANDLING PRECAUTIONS: ..... Use with adequate ventilation. Do not breathe vapors or mists from heated material. Avoid exposure to concentrated vapors. Avoid skin and eye contact. Wash thoroughly after handling. When mixed with epoxy resin

this product causes an exothermic reaction, which in large masses, can produce enough heat to damage or ignite surrounding materials and emit fumes and vapors that vary widely in composition and toxicity.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: ..... Use with adequate general ventilation and/or local ventilation to keep exposures below established limits.

EYE PROTECTION GUIDELINES: ..... Chemical splash-proof goggles or face shield.

SKIN PROTECTION GUIDELINES: ..... Wear liquid-proof, chemical resistant gloves (nitrile-butyl rubber, neoprene, butyl rubber or natural rubber) and full body-covering clothing.

RESPIRATORY PROTECTION GUIDELINES: ..... When ventilation cannot be made adequate enough to keep exposures below established limits, use a NIOSH approved respirator with an organic vapor cartridge, organic vapor cartridge + P100, or a multi-contaminant cartridge, depending on specific workplace conditions. Consult with your respirator and cartridge supplier to ensure proper selection of respirator and cartridge based on ingredients listed in Section 3 and specific workplace conditions. Use and select a respirator according the guidelines established in OSHA 1910.134 or other applicable respiratory protection standard.

ADDITIONAL PROTECTIVE MEASURES: ..... Use where there is immediate access to safety shower and emergency eye wash. Wash thoroughly after use. Contact lens should not be worn when working with this material. Generally speaking, working cleanly and following basic precautionary measures will greatly minimize the potential for harmful exposure to this product under normal use conditions.

OCCUPATIONAL EXPOSURE LIMITS: ..... Exposure limits may not be established for this product as a whole. For established exposure limits of specific ingredients in this product, or other available exposure limit information, refer to the table below.

Ingredient Name	CAS#	Exposure Limit Information
Trimethylhexane-1,6-diamine	25620-58-0	No data available
Benzyl alcohol	100-51-6	10 ppm (AIHA-WEEL)
Isophoronediamine	2855-13-2	No data available
Polymer of epichlorohydrin, bisphenol A, and trimethylhexane-1,6-diamine	111850-23-8	No data available
Decanedioic acid, 1, 10-bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester	41556-26-7	1mg/m^3 CELING

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM: ..... Liquid.
COLOR: ..... Clear
ODOR: ..... Ammonia-like
ODOR THRESHOLD: ..... No data available
pH ..... 12.13.
MELTING POINT / FREEZING POINT ..... No data.
BOILING POINT (760mm/Hg): ..... > 400°F (204°C)
FLASH POINT: ..... Estimated > 200°F (93°C) estimated based similar product.
AUTO IGNITION TEMPERATURE ..... No data.
LOWER EXPLOSIVE LIMIT (LEL) ..... No data.
UPPER EXPLOSIVE LIMIT (UEL) ..... No data.
VAPOR PRESSURE ..... No data.
SPECIFIC GRAVITY/DENSITY (water = 1) 0.97
BULK DENSITY ..... 8.14 lbs./gal. (0.97 kg/L)
VAPOR DENSITY (air = 1) ..... No data.
EVAPORATIOIN RATE (Butyl Acetate = 1) ..... No data.
WATER SOLUBILITY (% BY WT.) ..... No data.
PARTITION COEFFICIENT, n-OCTANOL/WATER (log Pow) ..... No data.
KINEMATIC VISCOSITY: ..... 88.6 (mm^2/s @ 22°C)
DECOMPOSITION TEMPERATURE: ..... No data available
% VOLATILE BY WEIGHT: ..... ASTM 2369-07 was used to determine the Volatile Matter Content of mixed epoxy resin and hardener. The combined VOC content for the resin and hardener system is listed below.

Resin/Hardener	VOC Content (g/L)	(lbs/gal)
ACE-166 / ACE-265	7.82	0.07

10. STABILITY AND REACTIVITY

STABILITY: ..... Product is stable at normal temperatures and pressures.

REACTIVITY/HAZARDOUS REACTIONS: ..... Product will not react by itself. A mass of more than one pound of product mixed with an epoxy resin will cause irreversible polymerization with significant heat buildup. Strong acids, bases, amines and mercaptans can cause polymerization.

INCOMPATIBILITIES: ..... Avoid acids, oxidizing materials, halogenated organic compounds (*e.g.*, methylene chloride). External heating or self-heating could result in rapid temperature increase and pressure build up. If such a condition were to occur in a drum, the drum could expand and rupture violently.

CONDITIONS TO AVOID: ..... Avoid excessive heat.

DECOMPOSITION PRODUCTS: ..... Very toxic fumes and gases when burned or otherwise heated to decomposition. Decomposition products may include, but not limited to: oxides of nitrogen, volatile amines, ammonia, nitric acid, nitrosamines.

11. TOXICOLOGICAL INFORMATION

Ingredient Name	CAS#	LD_{50} Oral	LD_{50} Dermal	LC_{50} Inhalation
Trimethylhexane-1,6-diamine	25620-58-0	910 mg/kg	No data	No data
Benzyl alcohol	100-51-6	1620 mg/kg	No data	>4.18 mg/l 4 h aerosol
Isophoronediamine	2855-13-2	1030 mg/kg	>2000 mg/kg	> 5.01 mg/l 4h dust/mist
Polymer of epichlorohydrin, bisphenol A, and trimethylhexane-1,6-diamine	111850-23-8	No data	No data	No data
Decanedioic acid, 1, 10-bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester	41556-26-7	No data	No data	No data

ACUTE TOXICITY: ..... No specific toxicity data exists for this mixture. Classification is based on acute toxicity estimation methods using ingredient data.

Oral: ..... Harmful if swallowed. Category 4. May result in gastrointestinal tract irritation, pain and possible burns.

Dermal: ..... Not classified. Based on available data does not meet acute dermal toxicity classification criteria.

Inhalation: ..... Not classified. Based on available data does not meet acute inhalation toxicity classification criteria.

SKIN CORROSION / IRRITATION: ..... Causes severe skin burns. Category 1B. Effects may be immediate.

SERIOUS EYE DAMAGE / IRRITATION: ..... Causes serious eye damage. Category 1.

RESPIRATORY SENSITIZATION: ..... Based on available data does not meet classification criteria.

SKIN SENSITIZATION: ..... May cause allergic skin reaction. Category 1.

REPRODUCTIVE TOXICITY: ..... Based on available data does not meet classification criteria.

MUTAGENICITY: ..... Based on available data does not meet classification criteria.

CARCINOGENICITY: ..... Based on available data does not meet classification criteria.

SPECIFIC TARGET ORGAN TOXICITY (Single Exposure): ..... Not classified. Based on available data does not meet classification criteria.

SPECIFIC TARGET ORGAN TOXICITY (Repeated Exposure): ..... Not classified. Based on available data does not meet classification criteria.

ASPIRATION HAZARD: ..... Based on available data does not meet classification criteria.

OTHER HEALTH HAZARD INFORMATION: ..... None known.

12. ECOLOGICAL INFORMATION

ACUTE AQUATIC TOXICITY: ..... No specific test data available for the mixture. Calculated Estimate: Aquatic Acute Category 3. Harmful to aquatic life. Avoid release to the environment.

CHRONIC AQUATIC TOXICITY: ..... No specific test data available for the mixture. Calculated Estimate: Aquatic Chronic Category 3. Harmful to aquatic life with long lasting effects. Avoid release to the environment.

PERSISTANCE AND BIODEGRADABILITY: ..... No specific test data available for the mixture.

MOBILITY IN SOIL: ..... No specific test data available for the mixture.

ADDITIONAL ECOTOXICITY INFORMATION: ..... In the liquid, uncured state, this product may be harmful to aquatic life with long lasting effects. Prevent release to the environment, sewers and natural waters.

Ingredient	CAS#	Ecotoxicity Classification Information
Trimethylhexane-1,6-diamine	25620-58-0	Acute Aquatic Cat. 3; Chronic Aquatic Cat. 3
Benzyl alcohol	100-51-6	Not classified

Isophoronediamine	2855-13-2	Chronic Aquatic Cat. 3
Polymer of epichlorohydrin, bisphenol A, and trimethylhexane-1,6-diamine	111850-23-8	Acute Aquatic Cat. 3; Chronic Aquatic Cat. 3
Decanedioic acid, 1, 10-bis(1,2,2,6,6-pentamethyl-4-piperidinyl) ester	41556-26-7	Acute Aquatic Cat. 1; Chronic Aquatic Cat. 1

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: ..... Evaluation of this product using RCRA criteria shows that it is not a hazardous waste, either by listing or characteristics, in its purchased form. It is the responsibility of the user to determine proper disposal methods.

Incinerate, recycle (fuel blending) or reclaim may be preferred methods when conducted in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

US DOT
UN NUMBER: ..... UN 2735
SHIPPING NAME: ..... Polyamines, liquid, corrosive, n.o.s.
TECHNICAL SHIPPING NAME: ..... Isophoronediamine
HAZARD CLASS: ..... Class 8
PACKING GROUP: ..... PG II
MARINE POLLUTANT: ..... No

CANADA TDG
UN NUMBER: ..... UN 2735
SHIPPING NAME: ..... Polyamines, liquid, corrosive, n.o.s.
TECHNICAL SHIPPING NAME: ..... Isophoronediamine
HAZARD CLASS: ..... Class 8
PACKING GROUP: ..... PG II
MARINE POLLUTANT: ..... No

IMDG
UN NUMBER: ..... UN 2735
SHIPPING NAME: ..... Polyamines, liquid, corrosive, n.o.s.
TECHNICAL SHIPPING NAME: ..... Isophoronediamine
HAZARD CLASS: ..... Class 8
PACKING GROUP: ..... PG II
EmS Number: ..... F-A, S-B
MARINE POLLUTANT ..... No

ICAO/IATA
UN NUMBER: ..... UN 2735
SHIPPING NAME: ..... Polyamines, liquid, corrosive, n.o.s.
TECHNICAL SHIPPING NAME: ..... Isophoronediamine
HAZARD CLASS: ..... Class 8
PACKING GROUP: ..... PG II
MARINE POLLUTANT: ..... No

15. REGULATORY INFORMATION

COUNTRY	INVENTORY LIST	STATUS
United States	TSCA	All ingredients are listed or otherwise compliant.
Europe	EINECS or ELINCS	All ingredients are listed or otherwise compliant.
Canada	CEPA (DSL/NDSL)	All ingredients are listed or otherwise compliant.
Australia	AICS	All ingredients are listed or otherwise compliant.
Japan	ENCS	All ingredients are listed or otherwise compliant.
South Korea	KECI	All ingredients are listed or otherwise compliant.
China	IECSC	All ingredients are listed or otherwise compliant.
Philippines	PICCS	All ingredients are listed or otherwise compliant.

US EPA TSCA Requirements: ..... No data available.

Canada WHMIS Confidential Business Information (CBI): ..... No data available.

US EPA SARA TITLE III Reporting and Notification Requirements:
Subject to Section 302 (TPQ) ..... No data available.
Subject to Section 304 (RQ) ..... No data available.
Subject to Section 311 or 312 ..... Refer to the health and physical classifications in Section 2.
Subject to Section 313 ..... No data available.

US STATE REGULATORY INFORMATION:
The following chemicals may be specifically regulated by individual states. For details on state regulatory requirements you should contact the appropriate state agency.

COMPONENT NAME /CAS NUMBER	STATE CODE
Benzyl alcohol 100-51-6	MA, PA, NJ

16. OTHER INFORMATION

REASON FOR ISSUE: ..... New product.
PREPARED BY: ..... Gougeon Brothers, Inc.
SDS CONTACT: ..... safety@gougeon.com
TITLE: ..... Health, Safety & Environmental Manager
APPROVAL DATE: ..... October 22, 2019
SUPERSEDES DATE: ..... N/A
SDS VERSION: ACE-265-2019a

OTHER HAZARD INFORMATION AND RATING SYSTEMS:

HMIS® RATING

HEALTH:	**3**
FLAMMABILITY:	**1**
PHYSICAL HAZARD:	**0**
PERSONAL PROTECTION:	

NFPA® 704 CODES

Approximate HMIS and NFPA Risk Ratings Legend:
0 = Low or None; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe

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