



Material Safety Data Sheet

Issue Date: 24-OCT-2011
Supersedes: 07-MAY-2010

KLARAIID PC2700

1 Identification

Identification of substance or preparation

KLARAIID PC2700

Product Application Area

Coagulant.

Company/Undertaking Identification

GE Betz, Inc.
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Trevose, PA 19053
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Emergency Telephone

(800) 877-1940

Prepared by Product Stewardship Group: T 215-355-3300 Prepared on: 24-OCT-2011

2 Hazard(s) identification

EMERGENCY OVERVIEW

WARNING

May cause moderate irritation to the skin. Severe irritant to the eyes. Mists/aerosols may cause irritation to upper respiratory tract.

DOT hazard: Environmentally hazardous substance: RQ
Odor: Slight; Appearance: Dark Brown, Liquid

Fire fighters should wear positive pressure self-contained breathing apparatus(full face-piece type). Proper fire-extinguishing media:
Foam, carbon dioxide, dry chemical.

POTENTIAL HEALTH EFFECTS

ACUTE SKIN EFFECTS:

Primary route of exposure; May cause moderate irritation to the skin.

ACUTE EYE EFFECTS:

Severe irritant to the eyes.

ACUTE RESPIRATORY EFFECTS:

Mists/aerosols may cause irritation to upper respiratory tract.

INGESTION EFFECTS:

May cause gastrointestinal irritation.

TARGET ORGANS:

Prolonged or repeated exposures may cause increased risk of cancer and/or toxicity to the liver and kidney.

MEDICAL CONDITIONS AGGRAVATED:

Not known.

SYMPTOMS OF EXPOSURE:

May cause redness or itching of skin.

3 Composition / information on ingredients

Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this MSDS for our assessment of the potential hazards of this formulation.

HAZARDOUS INGREDIENTS:

Cas#	Chemical Name	Range (w/w%)
50-00-0	FORMALDEHYDE Highly toxic (by inhalation); Toxic (by ingestion and skin absorption); irritant (eyes, skin, and respiratory); sensitizer (skin and respiratory); human carcinogen (IARC=1; NTP=anticipated)	0.1-1.0
2002-24-6	MONOETHANOLAMINE HYDROCHLORIDE Corrosive; may cause liver and kidney toxicity	3-7

4 First-aid measures

SKIN CONTACT:

Wash thoroughly with soap and water. Remove contaminated clothing. Thoroughly wash clothing before reuse. Get medical attention if irritation develops or persists.

EYE CONTACT:

Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get immediate medical attention.

INHALATION:

If nasal, throat or lung irritation develops - remove to fresh air and get medical attention.

INGESTION:

Do not feed anything by mouth to an unconscious or convulsive victim. Do not induce vomiting. Immediately contact physician. Dilute contents of stomach using 2-8 fluid ounces (60-240 mL) of milk or water.

NOTES TO PHYSICIANS:

No special instructions

5 Fire-fighting measures

FIRE FIGHTING INSTRUCTIONS:

Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).

EXTINGUISHING MEDIA:

Foam, carbon dioxide, dry chemical.

HAZARDOUS DECOMPOSITION PRODUCTS:

oxides of carbon and nitrogen, hydrogen chloride

FLASH POINT:

> 200F > 93C P-M(CC)

MISCELLANEOUS:

Environmentally hazardous substance: RQ

UN 3082;Emergency Response Guide #171

6 Accidental release measures

PROTECTION AND SPILL CONTAINMENT:

Ventilate area. Use specified protective equipment. Contain and absorb on absorbent material. Place in waste disposal container.

Flush area with water. Wet area may be slippery. Spread sand/grit.

DISPOSAL INSTRUCTIONS:

Water contaminated with this product may be sent to a sanitary sewer treatment facility, in accordance with any local agreement, a permitted waste treatment facility or discharged under a permit. Product as is - Incinerate or land dispose in an approved landfill.

7 Handling and storage

HANDLING:

Clean spill immediately. Wash contaminated skin promptly.

STORAGE:

Shelf life = 135 days. Keep containers closed when not in use.

Protect from freezing. Do not store at elevated temperatures.

8 Exposure controls / personal protection

EXPOSURE LIMITS**CHEMICAL NAME**

FORMALDEHYDE

PEL (OSHA): 0.75 PPM(STEL-2PPM)

TLV (ACGIH): 0.3 PPM-CEILING

MONOETHANOLAMINE HYDROCHLORIDE

PEL (OSHA): LIMITS HAVE NOT BEEN ESTABLISHED BY US OSHA.

TLV (ACGIH): LIMITS HAVE NOT BEEN ESTABLISHED BY ACGIH.

ENGINEERING CONTROLS:

Adequate ventilation to maintain air contaminants below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT:

Use protective equipment in accordance with 29CFR 1910 Subpart I

RESPIRATORY PROTECTION:

A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

USE AIR PURIFYING RESPIRATORS WITHIN USE LIMITATIONS ASSOCIATED

WITH THE EQUIPMENT OR ELSE USE SUPPLIED AIR-RESPIRATORS.
If air-purifying respirator use is appropriate, use a
respirator with formaldehyde cartridges.

SKIN PROTECTION:

rubber, butyl, viton or neoprene gloves -- Wash off after
each use. Replace as necessary.

EYE PROTECTION:

splash proof chemical goggles

9 Physical and chemical properties

Spec. Grav. (70F, 21C)	1.167	Vapor Pressure (mmHG)	~ 18.0
Freeze Point (F)	18	Vapor Density (air=1)	< 1.00
Freeze Point (C)	-8		
Viscosity (cps 70F, 21C)	131	% Solubility (water)	100.0

Odor	Slight
Appearance	Dark Brown
Physical State	Liquid
Flash Point	P-M(CC) > 200F > 93C
pH As Is (approx.)	2.6
Evaporation Rate (Ether=1)	< 1.00
Percent VOC:	0.0

NA = not applicable ND = not determined

10 Stability and reactivity

CHEMICAL STABILITY:

Stable under normal storage conditions.

POSSIBILITY OF HAZARDOUS REACTIONS:

Contact with strong bases may cause a violent reaction releasing
heat.

INCOMPATIBILITIES:

May react with bases or strong oxidizers.

DECOMPOSITION PRODUCTS:

oxides of carbon and nitrogen, hydrogen chloride

11 Toxicological information

Oral LD50 RAT: >5,000 mg/kg

12 Ecological information

AQUATIC TOXICOLOGY

Ceriodaphnia 48 Hour Static Acute Bioassay
LC50= 15.5; No Effect Level= 11.5 mg/L
Daphnia magna 48 Hour Static Renewal Bioassay
LC50= 73; 0% Mortality= 15.6 mg/L
Fathead Minnow 96 Hour Static Renewal Bioassay
LC50= 80; No Effect Level= 31.3 mg/L
Menidia beryllina (Silversides) 96 Hour Static Acute Bioassay
LC50= 658; No Effect Level= 5 mg/L

Mysid Shrimp 48 Hour Static Acute Bioassay
LC50= 319; No Effect Level= 62.5 mg/L
Rainbow Trout 96 Hour Static Renewal Bioassay
LC50= 14; No Effect Level= 6.3 mg/L

BIODEGRADATION

BOD-28 (mg/g): 275
BOD-5 (mg/g): 85
COD (mg/g): 480
TOC (mg/g): 190

13 Disposal considerations

If this undiluted product is discarded as a waste, the US RCRA hazardous waste identification number is :
Not applicable.

Please be advised; however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

14 Transport information

Transportation Hazard: Environmentally hazardous substance: RQ
DOT: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.(FORMALDEHYDE SOLUTION)
9, UN3082, PG III, RQ
DOT EMERGENCY RESPONSE GUIDE #: 171
Note: Some containers may be DOT exempt, please check BOL for exact container classification
IATA: Not Regulated

IMDG: Not Regulated

15 Regulatory information

TSCA:

All components of this product are included on or are in compliance with the U.S. TSCA regulations.

CERCLA AND/OR SARA REPORTABLE QUANTITY (RQ):

2,572 gallons due to FORMALDEHYDE;

NSF Registered and/or meets USDA (according to 1998 Guidelines):

Registration number: Not Registered
L1

SARA SECTION 312 HAZARD CLASS:

Immediate(acute);Delayed(Chronic)

SARA SECTION 302 CHEMICALS:

CAS#	CHEMICAL NAME
50-00-0	FORMALDEHYDE

SARA SECTION 313 CHEMICALS:

CAS#	CHEMICAL NAME	RANGE
50-00-0	FORMALDEHYDE	0.1-1.0%

CALIFORNIA REGULATORY INFORMATION

CALIFORNIA SAFE DRINKING WATER AND TOXIC

ENFORCEMENT ACT (PROPOSITION 65):

This product contains one or more ingredients known to the state of California to cause cancer.

MICHIGAN REGULATORY INFORMATION

No regulated constituent present at OSHA thresholds

16 Other information

HMIS vII		CODE TRANSLATION
Health	2	Moderate Hazard
Fire	1	Slight Hazard
Reactivity	0	Minimal Hazard
Special	NONE	No special Hazard
(1) Protective Equipment	B	Goggles, Gloves

(1) refer to section 8 of MSDS for additional protective equipment recommendations.

CHANGE LOG

	EFFECTIVE DATE	REVISIONS TO SECTION:	SUPERCEDES
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MSDS status:	30-JAN-1997		** NEW **
	02-JUL-1997	15	30-JAN-1997
	04-JUL-1997	15	02-JUL-1997
	08-JUL-1997	15	04-JUL-1997
	09-JUL-1997	15	08-JUL-1997
	22-JUL-1997	12	09-JUL-1997
	06-JUL-1998	3	22-JUL-1997
	31-JUL-1998	2	06-JUL-1998
	08-APR-1999	;EDIT:9	31-JUL-1998
	15-JUN-1999	12	08-APR-1999
	08-OCT-1999	12	15-JUN-1999
	21-OCT-1999	12	08-OCT-1999
	19-MAR-2001	2	21-OCT-1999
	07-MAY-2002	12	19-MAR-2001
	09-JUL-2002	12	07-MAY-2002
	08-OCT-2002	2, 8, 15	09-JUL-2002
	02-DEC-2002	11	08-OCT-2002
	14-JAN-2003	2, 3, 8	02-DEC-2002
	17-MAR-2003	8	14-JAN-2003
	01-APR-2004	15	17-MAR-2003
	05-JUN-2006	2, 15	01-APR-2004
	19-SEP-2006	3, 5, 14	05-JUN-2006
	03-DEC-2008	14	19-SEP-2006
	09-JUN-2009	4, 5, 7, 8, 10	03-DEC-2008
	07-MAY-2010	15	09-JUN-2009
	24-OCT-2011	14	07-MAY-2010