



Material Safety Data Sheet

Issue Date: 18-SEP-2009
Supersedes: 23-NOV-2004

PROCHEM 4H2

1 Identification

Identification of substance or preparation
PROCHEM 4H2

Product Application Area
Blend of neutralizing amines in hydrocarbon solvent.

Company/Undertaking Identification
GE Betz, Inc.
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Emergency Telephone
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Prepared by Product Stewardship Group: T 215-355-3300 Prepared on: 18-SEP-2009

2 Hazard(s) identification

EMERGENCY OVERVIEW

DANGER

Corrosive. Absorbed by skin. Skin sensitizer. Corrosive to the eyes. Vapors, gases, mists and/or aerosols cause irritation to the upper respiratory tract. Prolonged exposure may cause dizziness and headache.

DOT hazard: Corrosive to skin, Flammable
Odor: Aromatic; Appearance: Colorless To Black, Liquid

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

POTENTIAL HEALTH EFFECTS

ACUTE SKIN EFFECTS:

Primary route of exposure; Corrosive. Absorbed by skin. Skin sensitizer.

ACUTE EYE EFFECTS:

Corrosive to the eyes.

ACUTE RESPIRATORY EFFECTS:

Primary route of exposure; Vapors, gases, mists and/or aerosols cause irritation to the upper respiratory tract. Prolonged exposure may cause dizziness and headache.

INGESTION EFFECTS:

May cause severe irritation or burning of mouth, throat, and gastrointestinal tract with severe chest and abdominal pain, nausea, vomiting, diarrhea, lethargy and collapse. Possible death when ingested in large doses or aspirated.

TARGET ORGANS:

Prolonged or repeated exposures may cause skin sensitization, tissue necrosis, and/or toxicity to the kidney and nervous system. Product or product component may increase the risk of cancer.

MEDICAL CONDITIONS AGGRAVATED:

Not known.

SYMPTOMS OF EXPOSURE:

Causes severe irritation, burns or tissue ulceration with subsequent scarring. May cause cyanosis and/or gangrenous ulcerations 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. This product is subject to the Pennsylvania and New Jersey Worker and Community Right to Know Law.

HAZARDOUS INGREDIENTS:

Cas#	Chemical Name	Range (w/w%)
91-20-3	NAPHTHALENE Irritant; absorbed by skin; sensitizer; possible human carcinogen (IARC=2B; NTP=anticipated); toxic to liver, kidney, and blood; causes nasal tumors in rats	7-13
64742-94-5	SOLVENT NAPHTHA, PETROLEUM, HEAVY AROMATIC Combustible liquid; irritant (eyes)	40-70
109-55-7	DIMETHYLAMINOPROPYLAMINE (DMPA) Flammable; corrosive (eyes and skin); toxic (by ingestion and skin absorption); irritant (inhalation); sensitizer (skin)	15-40
100-37-8	DIETHYLAMINOETHANOL (DEAE) Combustible liquid; corrosive (eyes and skin); irritant (respiratory); absorbed by skin; potential skin sensitizer	5-10
78-96-6	MONOISOPROPANOLAMINE (2-PROPANOL, 1-AMINO-) Combustible; corrosive (eyes and skin)	3-7

NON-HAZARDOUS INGREDIENTS:

CAS#

CHEMICAL NAME

NONE

4 First-aid measures

SKIN CONTACT:

URGENT! Wash thoroughly with soap and water. Remove contaminated clothing. Get immediate medical attention. Thoroughly wash clothing before reuse.

EYE CONTACT:

URGENT! Immediately flush eyes with plenty of low-pressure water for at least 20 minutes while removing contact lenses. Hold eyelids apart. Get immediate medical attention.

INHALATION:

Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get immediate medical attention.

INGESTION:

Do not feed anything by mouth to an unconscious or convulsive victim. Do not induce vomiting. Immediately contact physician. Rinse mouth with plenty of water. Dilute contents of stomach using 4-10 fluid ounces (120-300 mL) of milk or water.

NOTES TO PHYSICIANS:

Material is corrosive. It may not be advisable to induce vomiting. Possible mucosal damage may contraindicate the use of gastric lavage. Aspiration into the lungs will result in chemical pneumonia and may be fatal.

5 Fire-fighting measures

FIRE FIGHTING INSTRUCTIONS:

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

EXTINGUISHING MEDIA:

dry chemical, carbon dioxide or foam--Avoid water if possible.

HAZARDOUS DECOMPOSITION PRODUCTS:

oxides of carbon and nitrogen

FLASH POINT:

116F 47C P-M(CC)

MISCELLANEOUS:

Corrosive to skin, Flammable
UN 2734;Emergency Response Guide #132

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. Remove ignition sources. Flush area with water. 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:

Combustible. Bond and ground containers during filling or discharge. Do not use near sparks, flames or sources of ignition. Alkaline. Corrosive(Skin/eyes). Do not mix with acidic material.

STORAGE:

Keep containers closed when not in use. Store in cool ventilated location. Store away from oxidizers. Keep away from flames or sparks.

8 Exposure controls / personal protection

EXPOSURE LIMITS

CHEMICAL NAME

NAPHTHALENE

PEL (OSHA): 10 PPM
TLV (ACGIH): 10 PPM

SOLVENT NAPHTHA, PETROLEUM, HEAVY AROMATIC

PEL (OSHA): NOT DETERMINED
TLV (ACGIH): NOT DETERMINED
MISC: Note- manufacturer's recommended exposure limit: 100 ppm.

DIMETHYLAMINOPROPYLAMINE (DMPA)

PEL (OSHA): NOT DETERMINED
TLV (ACGIH): NOT DETERMINED

DIETHYLAMINOETHANOL (DEAE)

PEL (OSHA): 10 PPM(SKIN)
TLV (ACGIH): 2 PPM(SKIN)

MONOISOPROPANOLAMINE (2-PROPANOL,1-AMINO-)

PEL (OSHA): NOT DETERMINED
TLV (ACGIH): NOT DETERMINED

8) EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

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 organic vapor cartridges.

SKIN PROTECTION:

gauntlet-type rubber, butyl or neoprene gloves, chemical resistant apron -- Wash off after each use. Replace as necessary.

EYE PROTECTION:

splash proof chemical goggles, face shield

9 Physical and chemical properties

Density	7.3 lbs/gal	Vapor Pressure (mmHG)	< 10.0
Freeze Point (F)	< -50	Vapor Density (air=1)	> 1.00
Freeze Point (C)	< -46		
Viscosity(cps 70F,21C)	4	% Solubility (water)	0.0

Odor	Aromatic		
Appearance	Colorless To Black		
Physical State	Liquid		
Flash Point	P-M(CC)	116F	46C
pH 50% Extract (approx.)	12.5		
Evaporation Rate (Ether=1)	< 1.00		
Percent VOC:	99.8		

NA = not applicable ND = not determined

10 Stability and reactivity

CHEMICAL STABILITY:

Stable under normal storage conditions.

POSSIBILITY OF HAZARDOUS REACTIONS:

Friction, heat or other sources of ignition may cause a violent reaction releasing heat and toxic fumes. Contact with oxidizers may cause fire or explosion. Contact with strong acids may cause a violent reaction releasing heat.

INCOMPATIBILITIES:

May react with acids.

DECOMPOSITION PRODUCTS:

oxides of carbon and nitrogen

11 Toxicological information

Oral LD50 RAT:	3,250 mg/kg
NOTE - Estimated value	
Dermal LD50 RABBIT:	1,650 mg/kg
NOTE - Estimated value	
Skin Irritation Score RABBIT:	6.3
NOTE - EPA Category- I: corrosive; DOT HM181 Packing Group- III: corrosive in 240 min.	
Eye Irritation Score RABBIT:	CORROSIVE
NOTE - Estimated value	

12 Ecological information

AQUATIC TOXICOLOGY

Bluegill Sunfish 48 Hour Static Screen
100% Mortality= 500; 0% Mortality= 10 mg/L
Daphnia magna 48 Hour Acute Toxicity (Estimated)
LC50= 15; No Effect Level= 4.2 mg/L
Fathead Minnow 96 Hour Acute Toxicity (Estimated)
LC50= 3.7 mg/L

BIODEGRADATION

BOD-28 (mg/g): 1015

BOD-5 (mg/g): 186
COD (mg/g): 1941
TOC (mg/g): 817

13 Disposal considerations

If this undiluted product is discarded as a waste, the US RCRA hazardous waste identification number is :
D001=Ignitable; D018=Benzene.

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

DOT HAZARD: Corrosive to skin, Flammable
PROPER SHIPPING NAME: AMINES, LIQUID, CORROSIVE, FLAMMABLE,
N.O.S.(DIMETHYLAMINOPROPANOL, NAPHTHA
8(3), UN 2734, PG II
DOT EMERGENCY RESPONSE GUIDE #: 132
Note: Some containers may be DOT exempt, please check BOL for exact container classification

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):

174 gallons due to NAPHTHALENE; Treat as oil spill

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

Registration number: Not Registered

SARA SECTION 312 HAZARD CLASS:

Immediate(acute);Delayed(Chronic);Fire

SARA SECTION 313 CHEMICALS:

CAS#	CHEMICAL NAME	RANGE
91-20-3	NAPHTHALENE	6.0-10.0%

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 and reproductive toxicity.

MICHIGAN REGULATORY INFORMATION

CAS#	CHEMICAL NAME
91-20-3	NAPHTHALENE

16 Other information

HMIS vII

Health

CODE TRANSLATION

3

Serious Hazard

Fire	2	Moderate Hazard
Reactivity	0	Minimal Hazard
Special	CORR	DOT corrosive
(1) Protective Equipment	D	Goggles, Face Shield, Gloves, Apron

(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:	22-AUG-1995	REVISED FORMAT	** NEW **
	28-SEP-1996	3, 5, 14	22-AUG-1995
	02-DEC-1996	;EDIT:9	28-SEP-1996
	01-APR-1997	12	02-DEC-1996
	05-JUN-1998	2, 8, 15	01-APR-1997
	21-AUG-2001	2	05-JUN-1998
	23-NOV-2004	15	21-AUG-2001
	18-SEP-2009	2, 4, 5, 7, 8, 10, 13, 15	23-NOV-2004