

MATERIAL SAFETY DATA SHEET

John C Dolph (a **VonRoll** Company)

RE-2001

Reactor

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer Name: John C Dolph (a Von Roll Company)
Address: 320 New Road, Monmouth Junction, New Jersey 08852
Business Phone: 732-329-2333
Business Fax: 732-329-1143
CHEMTREC: For transportation emergencies 703-527-3887 (US call 800-424-9300)
24-Hour Emergency: 518-395-3310
Manufacturer MSDS Creation Date: 09/2004
Manufacturer MSDS Revision Date: 06/2013

SECTION 2: COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Name	CAS#	% Weight	OSHA PEL	ACGIH TLV
Tetraethylenepentamine (TEPA)	112-57-2	< 15	Not Established	Not Established
TOFA, Reaction Products with TEPA	68953-36-6	>85	Not Established	Not Established

SECTION 3: HAZARDS IDENTIFICATION

Emergency Overview:

Irritant. Sensitizer.

Applies to All Ingredients:

Route of Exposure:

Eye Contact, Skin Contact, Ingestion, Skin Absorption.

Potential Health Effects:

Eye Contact:

May cause eye irritation.

Skin Contact:

Moderate skin irritant. May cause skin sensitization.

Inhalation:

Respiratory system irritant.

Target Organs:

Eye, Skin, Respiratory system.

Signs/Symptoms:

Product vapor in low concentrations can cause lacrimation, conjunctivitis and corneal edema when absorbed into the tissue of the eye from the atmosphere. Corneal edema may give rise to a perception of "blue haze" or "fog" around lights. The effect is transient and has no known residual effect. Contact with skin causes irritation, redness and discomfort which is transient. Inhalation of mists may cause irritation in the respiratory tract. Inhalation of vapors may cause irritation in the respiratory tract. Coughing and chest pain may result. Contact with eyes may cause irritation. Product is absorbed through the skin and may cause nausea, headache and general discomfort.

Repeated and/or prolonged exposure may cause allergic reaction/sensitization. Repeated and/or prolonged exposures may result in: adverse respiratory effects (such as cough, tightness of chest or shortness of breath), adverse eye effects (such as conjunctivitis or corneal damage), adverse skin effects (such as rash, irritation or corrosion). Effects from inhalation of vapors may be delayed. Repeated and/or prolonged exposure to low concentrations of vapor may cause: sore throat, eye irritation which are transient.

Aggravation of Pre-Existing Conditions:

Asthma
Chronic respiratory disease (e.g. Bronchitis, Emphysema)
Eye disease
Skin disorders and Allergies.

SECTION 4: FIRST AID MEASURES

Eye Contact:

Immediately flush eyes with plenty of water for at least 20 minutes. Assure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention if irritation persists, or symptoms of overexposure become apparent.

Skin Contact:

Immediately wash skin with plenty of water and soap for at least 20 minutes, while removing contaminated clothing and shoes. Get medical attention especially, if irritation develops, persists, or symptoms of overexposure become apparent. Destroy contaminated leather apparel. Cover the affected area with a sterile dressing or clean sheeting and transport for medical care. DO NOT APPLY GREASES OR OINTMENTS. Control shock.

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Keep warm. Get immediate medical attention. Prevent aspiration of vomit. Turn victim's head to the side.

Ingestion:

If swallowed, call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting unless instructed by medical personnel. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point:

>275°F (>135°C)

Flash Point Method:

Closed cup.

Upper Flammable or Explosive Limit:

Not Established

Lower Flammable or Explosive Limit:

Not Established

Auto Ignition Temperature:

No Data

Extinguishing Media:

In the event of a fire involving this material, alone or in combination with other materials, use dry chemicals, carbon dioxide, universal foam extinguishing media or water fog.

Fire Fighting Instructions:

Evacuate area and fight fire from a safe distance. Containers can build up pressure if exposed to heat (fire). Use water spray to cool fire-exposed containers. Explosive

vapor-air mixture could form after the initial fire is extinguished. Use water spray to disperse vapors if a spill or leak has not ignited. Water runoff can cause environmental damage. Dike and collect water used to fight fire. See Section 13 for disposal considerations.

Protective Equipment:

Wear self-contained breathing apparatus pressure-demand, NIOSH (approved or equivalent) and full protective gear.

NFPA

Health: 2
Flammability: 1
Instability: 0

Other: NONE

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spill Cleanup Measures:

Remove all sources of ignition. Absorb spill with dry inert material (e.g., dry sand or earth), then place in a chemical waste container. Clean up spills immediately observing precautions in the protective equipment section.

Environmental Precautions:

Contain liquid to prevent contamination of soil, surface water or ground water. Avoid runoff into storm sewers and ditches, which lead to waterways. Do not flush to sewer.

Spill/Release Reporting:

Immediately notify authorities of any reportable spill as may be required pursuant to regulations. See Section 15 for applicable CERCLA reportable quantities.

SECTION 7: HANDLING and STORAGE

Storage:

Keep away from: acids, oxidizers. Keep in cool, dry, ventilated storage and in closed containers. Store in steel containers preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. Do not store in iron or other reactive metal containers. Recommended suitable container materials include plastic, stainless, and carbon steels.

Hygiene Practices:

Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended and or regulated exposure limits. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Skin Protection Description:

Wear suitable protective clothing to prevent contact with skin.

Hand Protection Description:

Neoprene rubber gloves. Impermeable gloves. Cuffed butyl rubber gloves. Nitrile rubber gloves.

Eye/Face Protection:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Protective Clothing/Body Protection:

If splashing is likely, wear impervious clothing and boots to prevent repeated or prolonged skin contact. Consult your supplier of personal protective equipment for additional instructions on proper usage.

Respiratory Protection:

A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited to airborne concentrations that are typically within 10 times the exposure limit. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirators use.

Other Protective:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State/Appearance:

Mobile liquid

Color:

Colorless

Odor:

Irritating

pH:

Alkaline

Decomposition Temperature:

No data.

Vapor Pressure:

No data.

Vapor Density:

No Data

Boiling Point:

>400°F (204°C)

Freezing Point:

No data.

Melting Point:

No Data

Solubility:

Completely (100%) in water

Specific Gravity:

0.95 ±0.1

Molecular Weight:

Mixture

Flashpoint:

>275°F (135°C)

Auto Ignition Temp:

No Data

Upper Flammable Explosive Limit:

Not Established

Lower Flammable Explosive Limit:

Not Established

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:

Stable

Incompatibilities with Other Materials:

Mineral acids (i.e. sulfuric, phosphoric, etc.). Organic acids (i.e. acetic acid, citric acid etc.). Oxidizing Agents (i.e. perchlorates, nitrates etc.). Sodium or Calcium Hypochlorite. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. A reaction accompanied by large heat release occurs when the product is mixed with acids. Heat generated may be sufficient to cause vigorous boiling creating a hazard due to splashing or splattering of hot material.

Hazardous Polymerization:

Will not occur.

Hazardous Decomposition Products:

(from burning, heating, or reaction with other materials). : Carbon Monoxide in a fire. Carbon Dioxide in a fire. Ammonia when heated. Nitrogen Oxides in a fire. Irritating and toxic fumes at elevated temperatures. Nitric acid in a fire. Nitrogen oxide can react with water vapors to form corrosive nitric acid (TLV=2 ppm).

SECTION 11: TOXICOLOGICAL INFORMATION

Applies to All Ingredients:

Skin Effects:

(LD₅₀, RABBIT): > 2,000 mg/kg

Ingestion Effects:

(LD₅₀, RAT) : > 2,000 mg/kg (est.)

Inhalation Effects:

(LC₅₀, RAT): No Data

Irritation:

Moderate skin irritation

SECTION 12: ECOLOGICAL INFORMATION

Ecological Paragraph:

Waste from this product may present long term environmental hazards, thus landfill disposal must be considered less acceptable than incineration.

Ecotoxicity:

No Data

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal:

Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines, by a licensed disposal company.

SECTION 14: TRANSPORT INFORMATION

DOT Shipping Name:
RESIN COMPOUND, LIQUID, NOT REGULATED
DOT UN Number:
NOT REGULATED
DOT Hazard Class: NOT REGULATED
DOT Packing Group: NOT REGULATED
Marine Pollutant: NONE

SECTION 15: REGULATORY INFORMATION

Applies to all ingredients:

TSCA 8(b): Inventory Status

Listed

Section 312 Hazard Category:

Acute: Yes

SECTION 16: ADDITIONAL INFORMATION

HMIS

Health: *2
Fire Hazard: 1
Physical Hazard: 0

Disclaimer:

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