MATERIAL SAFETY DATA SHEET

John C Dolph (a vonRoll Company)

DOLPHON®

CC-1094-A

Polyester "Pour-On" Resin

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 Styrene Monomer	**CAS#** 100-42-5	**% Weight** 30-50	**OSHA PEL** 100 ppm (TWA) 200 ppm ceiling (STEL)	**ACGIH TLV** 20 ppm (TWA) 40 ppm (STEL)
Chemical Name N-Methyl-2-Pyrrolidone	**CAS#** 872-50-4	**% Weight** <5	**OSHA PEL** Not Established	**ACGIH TLV** Not Established
Chemical Name Additives	**CAS#** Not Applicable	**% Weight** <5	**OSHA PEL** Not Established	**ACGIH TLV** Not Established

SECTION 3: HAZARDS IDENTIFICATION

Emergency Overview:

Flammable Liquid. Irritant. Harmful. May undergo hazardous polymerization. Possible carcinogen.

Applies to All Ingredients:

Route of Exposure:

Eyes, Skin, Inhalation, and Ingestion.

Potential Health Effects:

Eye Contact:

Can cause irritation to the eyes and mucous membrane. Low level of styrene causes tearing in the eyes.

Skin Contact:

Can cause irritation.

Skin Absorption:

Styrene is harmful by skin absorption.

Inhalation:

May cause respiratory irritation.

Ingestion:

Harmful if ingested.

Target Organs:

Respiratory System, Liver, Central Nervous System, Eyes, and Skin

Signs/Symptoms:

Symptoms of overexposure include nausea, fatigue, headache, loss of coordination, muscle weakness, a feeling of drunkenness, dizziness, unconsciousness, central nervous system depression, and irritation of the eyes, skin, and respiratory tract (including pulmonary edema).

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.

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Keep warm. Get immediate medical attention.

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

Fire:

Flammable Liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Vapor can form an explosive mixture in air. Vapor can travel to a source of ignition and flash back.

Flash Point:

88°F (31°C)

Flash Point Method:

Tag Closed Cup

Upper Flammable or Explosive Limit:

Not Established

Lower Flammable or Explosive Limit:

Not Established

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.

Hazardous Combustion Byproducts:

Oxides of carbon and oxides of nitrogen.

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. DO NOT extinguish a fire resulting from the flow of this flammable liquid until the flow of liquid is effectively shut off. 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.

Special Properties:

This material may polymerize (react) when its container is exposed to heat (as during a fire). This polymerization increases pressure inside a closed container and may result in the violent rupture of the container.

NFPA

Health: 2
Flammability: 3
Instability: 2
Other: NONE

SECTION 6: ACCIDENTIAL 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

Handling:

This product should be handled only by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals, who should take into account the fire, health and chemical hazard data.
Ground and bond containers when transferring material. Use spark-proof tools and explosion-proof equipment. Use with adequate ventilation.
"Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. Containers may explode and cause injury or death. Empty drums or containers should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

Storage:

Store in a cool, dry, well ventilated area away from sources of heat and incompatible substances. Keep container tightly closed when not in use. Do not store in copper or copper containing alloys. Consult manufacturer for shelf life.

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:

Wear appropriate protective gloves such as neoprene or viton. Consult glove manufacturers for glove permeability data.

Eye/Face Protection:

Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

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:

Liquid

Color:

Clear/Amber

Odor:

Aromatic

pH:

No data.

Decomposition Temperature:

No data.

Vapor Pressure:

No data.

Vapor Density:

No data.

Boiling Point:

No data

Freezing Point:

No data.

Solubility in Water:

< 0.05%

Specific Gravity:

1.05-1.15

Percent Volatile:

30-50%

Viscosity:

200-400 cps

Molecular Weight:

Mixture

Flashpoint:

88°F (31°C)

Upper Flammable or Explosive Limit:

Not Established

Lower Flammable or Explosive Limit:

Not Established

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:

Stable at normal temperatures and storage conditions.

Conditions to Avoid:

Flames, heat and high temperatures. Styrene reacts with oxygen above 40°C to form a heat-sensitive explosive peroxide.

Incompatibilities with Other Materials:

Oxidizers, Strong alkalis, peroxides, strong acids, aluminum chloride, metal salts.

Hazardous Polymerization:

May occur. Styrene polymerizes slowly at room temperature and readily at temp > 65°C. Hazardous polymerization will occur if contaminated with peroxides, metal salts and polymerization catalysts.

Hazardous Decomposition Products:

When heated to decomposition it emits acrid smoke & irritating fumes. Combustion byproducts includes carbon dioxide, carbon monoxide, and various hydrocarbons.

SECTION 11: TOXICOLOGICAL INFORMATION

Styrene Monomer:

Eye Effect:

Standard Draize test - rabbit, 100 mg, severe

Skin Effects:

TDLo (Lowest published toxic dose) - rat, 3500 mg/kg/7D-I

Ingestion Effects:

LD_{50} - rat, 2650 mg/kg

Inhalation Effects:

LC_{50} - rat, 12 gm/m^3/4H

Carcinogenicity:

International Agency for Research on Cancer (IARC) has classified styrene as a Group 2B carcinogen (defined as an agent that is possibly carcinogenic to humans).

Mutagenicity:

A number of animal mutagenicity tests with mixed positive and negative results were reported.

Irritation:

Primary irritant

N-Methyl-2-Pyrrolidone:

Eye Effect:

Standard Draize test - rabbit, 100 mg, Moderate

Skin Effects:

LD_{50} - rabbit, 8 gm/kg

Ingestion Effects:

LD_{50} - rat, 3914 mg/kg

Inhalation Effects:

TCLo (Lowest published toxic concentration) - rat, 150 ppm/6H

Carcinogenicity:

Not listed by the National Toxicology Program (NTP) Annual Report on Carcinogens or by the International Agency for Research on Cancer (IARC) Monographs, or by the Occupational Safety and Health Administration (OSHA).

Reproductive Toxicity:

Reproductive toxicity data reported.

Additives:

Acute Health Effects:

Inhibitors and driers may consist of p-Benzoquinone, Toluhydroquinone, cobalt carboxylate, and mineral spirits, which can cause severe irritation and burns to the eyes, skin, respiratory system, and the gastrointestinal tract.

Carcinogenicity:

Contains less than 0.1% by weight cobalt, which is considered as a possible human carcinogen by the International Agency for Research on Cancer (IARC), IARC group 2B.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Styrene: LC50 (Sheepshead minnow), 9.1 mg / l / 96 hr. Low mobility based upon an estimated Koc of 960. Styrene is toxic to aquatic organisms and should not be released to sewage, drainage systems and all bodies of water at concentrations exceeding approved limits under applicable regulations and permits.

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

FOR DOMESTIC NON-BULK SHIPMENT

DOT Shipping Name:
RESIN SOLUTION
DOT UN Number:
UN1866
DOT Hazard Class: 3
DOT Packing Group: III

FOR DOMESTIC BULK SHIPMENT AND OCEAN TRANSPORT

Shipping Name:
ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CONTAINS STYRENE)
UN Number:
UN1866
Hazard Class: CLASS 3
Packing Group: III
Marine Pollutant: STYRENE

SECTION 15: REGULATORY INFORMATION

All ingredients:
TSCA 8(b): Inventory Status
Listed or Exempt
N-Methyl-2-Pyrrolidone:
Section 312 Hazard Category:
Acute: Yes
Fire: Yes
Section 313 Toxic Release Form:
Reportable
State:
Listed in Florida, Pennsylvania, Minnesota, Massachusetts and California
Styrene Monomer:
Section 302 Extremely Hazardous Substances (RQ):
1000 pounds (454 kg)
Section 312 Hazard Category:
Acute: Yes
Chronic: Yes
Fire: Yes
Reactive: Yes

Section 313 Toxic Release Form:
Reportable
Section 112(r): Clean Air Act
Not listed
Section 116.4 part 117: Clean Water Act
Not listed
State:
Listed in New Jersey, Pennsylvania, Florida, Massachusetts, Minnesota, and California

SECTION 16: ADDITIONAL INFORMATION

HMIS

Health:	*2
Fire Hazard:	3
Physical Hazard:	2

Disclaimer:
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