Safety Data Sheet Dynaflux SDS DNF B 4/22/2014

Product: Crack Check DNF Developer / Liquid

Part 1: Product and Company Identification

Identification DNF B

Trade Name: Crack Check DNF Developer (liquid)

Product Use: To locate cracks on metal and hard surfaces in the non- destructive testing process.

Manufacturers Name: Dynaflux, Inc.
241 Brown Farm Rd.
Cartersville, GA 30120 U.S.A.

Emergency Telephone Number: For U.S.: 800-255-3924 International: 813-248-0585

Part 2: Hazardous Ingredients

Signal Word: **WARNING**

H351: Suspected of causing cancer

Hazardous Ingredients	CAS No.	SARA III List	PEL PPM	TLV PPM	Carcinogen Refer. Source
Dichloromethane	75-09-2	Yes	25	12.5	IARC NTP

Part 3: Hazard Rating

H.M.I.S.

Health	2
Flammability	0
Reactivity	0
Special	-

N.F.P.A.

Health	2
Flammability	0
Reactivity	0
Personal Protection	H

Potential Acute Health Effects: Very hazardous in case of eye contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (irritant, permeator). Inflammation of the eye is characterized by redness, watering and itching.

Part 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately. **GHS Subcategory 2A**

Skin Contact:

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention. **GHS Category 3**

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen, Get medical attention if symptoms appear.

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Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband. **GHS Category 4**

Reproductive Toxicity: GHS Category 2

Carcinogenicity: GHS Category 2

Part 5: Fire Fighting Measures

Auto-Ignition Temperature: 556°C (1032.8°F).

Flash Points: Nonflammable

Flammable Limits: LOWER: 12% UPPER 19%

Products of Combustion: These products are carbon oxides (CO, CO2), hydrogen chloride, small amounts of phosgene.

Fire Hazards in Presence of Various Substances: Not available.

Fire Fighting Media and Instructions: SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet. Cool containers to help prevent rupturing.

Part 6: Accidental Release Measures

Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate labeled waste disposal container.

Large Spill:

Absorb with an inert material and put the spilled material in an appropriate labeled waste container. Be careful that the product is not present at a concentration level above TLV.

Part 7: Handling and Storage

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk; evaporate the residue under a fume hood. Ground all equipment containing the material. Do not ingest. Do not breathe gas/fumes/vapor/spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical attention immediately. Avoid contact with skin and eyes.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Part 8: Exposure Control / Personal Protection

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work station location.

Personal Protection:

Splash goggles. Apron. Vapor respirator. Be sure to use an approved/certified respirator. Gloves

Personal Protection in Case of a Large Spill:

Splash goggles, full suit. Vapor respirator. Boots. Gloves. A self- contained breathing apparatus should be used to avoid inhalation of the product.

Exposure Limits:

TWA: 50 from ACGIH (TLV) [United States] TWA: 174 from ACGIH (TLV) [United States] Consult local authorities for acceptable exposure limits.

Continued

Part 9: Physical and Chemical Properties

Physical state and appearance: White tinted liquid.
Odor: Mild, sweet
Molecular Weight: 84.94
Specific Gravity: (water =1.0): 1.33
Solubility in Water (weight %): 1.32 gm/100gm @ 77°F (25°C)
pH: Not applicable
Boiling Point: 140°F (40°C).
Vapor Pressure: 350mm Hg at 68°F (20°C).
Vapor Density (Air=1): 2.9
Evaporation Rate: 0.7 Compared to: Ethyl Ether = 1
% Volatiles: 100
Flash Point: None

Part 10: Stability and Reactivity

Stability:
Stable under recommended storage conditions.
Avoid: Incompatible products
Incompatibilities:
Ignition sources, open flames, amines and strong bases.
Hazardous Polymerization:
Hazardous polymerization does not occur.

Part 11: Toxicological Information

Component Analysis – LD50/LC50

Dichloromethane (75-09-2)
Ingestion: Rat: LD50 1500-2500 mg/kg
Inhalation: Rat LC50 10,000 ppm

Carcinogenicity Classification: N.T.P. Anticipated Carcinogen. IARC: Possible carcinogen; 2B
Reproductive Toxicity: animal studies-None

Part 12: Ecological Information

Potential for mobility in soil is high.
Octanol/Water partition coefficient: 1.25
Organic carbon/water partition coefficient: 24
Atomospheric half life: 79-110 days
Biodegradation 5-26% 28 days
LC_{50} bluegil:l 224 mg/l
Aquatic Toxicity EC_{50} water flea. Immobilization: 480 mg/l

Part 13: Disposal Consideration

Waste Information: Dispose of as special waste in compliance with local and national regulations. Waste codes should be assigned by the user based on the application for which the product was used. Incineration of waste material in an EPA-approved facility is recommended, allowing a solid, inert residue to form.
Other Disposal Considerations: Observe all Federal, State and Local Environmental regulations.

Part 14: Transportation Information

DOT Hazard Classification: Dichloromethane, 6.1, UN1593, PGIII
RQ 1000lbs / 454 kg

Part 15: Regulatory Information

TSCA – The product on this MSDS, or all of its components, is listed under TSCA.
Section 311 Hazard Class: immediate. Delayed.
SARA 313 Toxic Chemicals:
The following ingredients are SARA 313 "Toxic Chemicals".

Ingredient Name:	**Comment:**
Dichloromethane (75-09-2)	0.1% de minimis concentration

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
WARNING! This product contains a chemical known to the State of California to cause cancer.
]
WHMIS Classification (Canada):
CLASS D-1B: Material causing immediate and serous toxic effects (TOXIC). CLASS D-2A: Material causing other toxic effects.

DSCL (EEC): R22-harmful if swallowed. R38- irritating to skin. R41- Risk of serious damage to eyes. R45- may cause cancer.

Part 16: Other Information

Dynaflux, Inc.
241 Brown Farm Rd.
Cartersville, GA 30120 U.S.A.

Disclaimer of Expressed and implied Warranties:
The information presented in this Safety Data Sheet is based on data believed to be accurate as of the date of the l Safety Data sheet was prepared. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices as specified on the label copy.