

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME (S): D2+PLUS®; PCA 159W

COMPANY IDENTIFICATION

Fuels Plus Inc.
P.O. Box 950
Alamo, CA 64507-0950

EMERGENCY TELEPHONE NUMBERS

Health or Transportation Emergency:
CHEMTREC: (800) 424-9300

PRODUCT INFORMATION: MSDS Requests: (925) 743-3761

Environmental, Safety, & Health Info: (925) 743-3761

Product Information: (925) 743-3761

2. COMPOSITION/INFORMATION ON INGREDIENTS

100% PCA 159 D2+PLUS® (PCA 159W)

ADDITIVES IN HIGHLY REFINED BASE OIL

Hazardous Components

COMPONENTS	AMOUNT	LIMIT/QTY	AGENCY/TYPE
HYDROTREATED DISTILLATE: LIGHT NAPHTHENIC OIL			
Chemical Name: DISTILLATES, HYDROTREATED LIGHT NAPHTHRNIC DISTILL			
CAS64742536	10% to 50%	5 mg/m ³ 10 mg/m ³ 5 mg/m ³	ACGIH TWA ACGIH STEL OSHA PEL

COMPOSITION COMMENT:

Not all the components of this material are on the Toxic Substances Control Act Chemical Substances Inventory. This product fits the ACGIH definition for mineral oil mist. The ACGIR TLV is 5 mg/m³, the OSHA PEL is 5 mg/m³.

The proportion compositions are given to allow for the various ranges of the components present in the whole product and may not equal 100%.

TLV	Threshold Limit Value	TWA	Time Weighted Average
STEL	Short-term Exposure Limit	TPQ	Threshold Planning Quantity
RQ	Reportable Quantity	PEL	Permissible Exposure Limit
C	Ceiling Limit	CAS	Chemical Abstract Service Number
A1-5	Appendix A Categories	()	Change Has Been Proposed

Revision Number: 2.3

Revision Date: 8/2/99

MSDS Number: 00159

NDA - No Data Available

NA - Not Applicable

Prepared According to the OSHA Hazard Communications Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1)

by Fuels Plus In., P.O. Box 950, Alamo, CA 94507-0950

3. HAZARDS IDENTIFICATION

***** **EMERGENCY OVERVIEW** *****

Amber Liquid

MAY CAUSE EYE IRRITATION

COMBUSTIBLE

MAY CAUSE AN ALLERGIC SKIN REACTION

POTENTIAL HEALTH EFFECTS EYE:

The eye irritation for this substance has not been determined. However, it may be slightly irritating to the eyes and could cause prolonged (days) impairment of your vision. The degree of the injury will depend on the amount of material that gets into the eye and the speed and thoroughness of the first aid treatment.

SKIN:

The skin irritation for this substance has not been determined. However, it may be a moderate skin irritant so contact with the skin could cause prolonged (days) injury to the affected area. The degree of the injury will depend on the amount of material that gets on the skin and the speed and thoroughness of first aid treatment. The skin sensitization potential of this product has not been determined. However, it contains an ingredient which is known to be a sensitizer in animals, and therefore prolonged or repeated skin contact with this product may cause an allergic skin reaction. However, it should be non-toxic to internal organs if it gets on the skin.

INGESTION:

The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if swallowed. This hazard evaluation is based on data from similar materials.

INHALATION:

Prolonged breathing of vapors can cause central nervous system effects. This hazard evaluation is based on data from similar materials,

SIGNS AND SYMPTOMS OF EXPOSURE:

EYE: May include pain, tear, swelling, redness, and blurred vision.

INHALATION:

Central nervous system effects may include one or more of following: headache, dizziness, loss of appetite, weakness and loss of coordination.

4. FIRST AID MEASURES

EYE:

Flush eyes immediately with fresh water for at least 15 minutes while holding eyelids open. Remove contact lenses if worn. No additional first aid should be necessary. However, if irritation persists, see a doctor.

SKIN:

Remove and wash contaminated clothing. Then wash skin thoroughly with soap and water. Get medical attention if rash or irritation develops. Wash contaminated clothing and shoes, or thoroughly clean before reuse.

INGESTION:

The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organ.

INHALATION:

Breathing the vapors at concentrates above the recommended exposure standards can cause central nervous system effects.

SIGNS AND SYMPTOMS OF EXPOSURE:

EYE: May include pain, tears, swelling, redness, and blurred vision.

SKIN: May include pain or a feeling of heat, discoloration, swelling, and blistering. **INHALATION:** Central nervous system effects may include one or more of the following: headache, dizziness, loss of appetite, weakness and loss of coordination

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5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT: PMCC 250°F (122°C)

AUTOIGNITION: NDA

FLAMMABILITY LIMITS (% by volume in air): Lower: NDA; Upper: NDA**EXTINGUISHABLE MEDIA:** CO2, Dry Chemical, Foam, Water, Fog**NFPA RATINGS:** Health 1; Flammability 1; Reactivity 0.**FIRE FIGHTING INSTRUCTIONS:** For fires involving material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Liquid evaporates and forms vapor (fumes), which can catch fire and burn with explosive violence.**COMBUSTION PRODUCTS:** Normal combustion forms carbon dioxide and water vapor and may produce oxides of nitrogen. Incomplete combustion can produce carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

CHEMTREC EMERGENCY NUMBER (24 HR.); (800) 424-9300 OR (202) 483-7616**ACCIDENTAL RELEASE MEASURES:**

Certain geographical areas have air pollution restrictions concerning the use of materials in work situations which may release volatile components to the atmosphere. Air pollution regulations should be studied to determine if this material is regulated in the area where it is to be used.

Eliminate all open flames in vicinity of spill or released vapor. Stop the source of the leak or release. Clean up releases as soon as possible, observing precautions in Exposure Controls/Personal Protection. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbet materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.

7. HANDLING AND STORAGE

HANDLING AND STORAGE

DO NOT weld, heat or drill container. Residue may ignite with explosive violence if heated sufficiently. Replace cap or bung. CAUTION do not use pressure to empty drum or drum may rupture with explosive force. READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL. Emptied container still contains hazardous or explosive vapor or liquid.

DO NOT USE OR STORE near flame, sparks or hot surfaces. USE ONLY IN WELL-VENTILATED AREA. Keep container closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT**EYE/FACE PROTECTION:**

Do not get this material in your eyes. Eye contact can be avoided by wearing chemical goggles.

SKIN PROTECTION:

Avoid contact with skin or clothing. Skin contact should be minimized by wearing protective clothing including solvent resistant gloves (i.e. neoprene or butyl rubber).

RESPIRATORY PROTECTION:

Wear approved respiratory protection when working with this material unless ventilation adequate to keep airborne concentrations below recommended exposure standards.

ENGINEERING CONTROLS:

Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard.

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9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION:	Light Amber Liquid
pH:	NA
VAPOR PRESSURE:	2.2 mm Hg @ 20C
VAPOR DENSITY (AIR=1):	MDA
BOILING POINT:	200C (Initial)
FREEZING POINT:	NA
MELTING POINT:	NA
SOLUBILITY:	Soluble in hydrocarbon solvents: insoluble in water.
SPECIFIC GRAVITY:	0.8888 @ 15C
DENSITY:	7.40 LB/GAL @ 60f
VISCOSITY:	4.58 cSt @ 40°C (Min.)
PERCENT VOLATILE (VOL):	NDA

10. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS: None
CHEMICAL STABILITY: Stable
CONDITIONS TO AVOID: No data available.
INCOMPATIBILITY WITH OTHER MATERIALS: May react with strong oxidizing agents, acids and alkalies.
HAZARDOUS POLYMERIZATION: Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:

No product toxicology data available. Hazard evaluation was based on data on components.

SKIN EFFECTS:

No product toxicology data available. Hazard evaluation was based on data on components.

ACUTE ORAL EFFECTS:

No product toxicology data available. Hazard evaluation was based on data on components.

ACUTE INHALATION EFFECTS:

No product toxicology data available. Hazard evaluation was based on data on components.

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as: carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

This material may be toxic to aquatic organisms and should be kept out of sewage and drainage systems and all bodies of water.

ENVIRONMENTAL FATE: No data available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL CONSIDERATIONS:

Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact your local environmental or health authorities for approved disposal of this material.

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MATERIAL SAFETY DATA SHEET

14. TRANSPORT INFORMATION

The description show may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT HAZARD CLASS: Not Regulated
DOT SHIPPING NAME:
DOT IDENTIFICATION NUMBER:
DOT PACKING GROUP:

15. REGULATORY INFORMATION

SARA 311 CATEGORIES:

- 1. Immediate (Acute) Health Effects: NO
2. Delayed (Chronic) Health Effects: NO
3. Fire Hazard: YES
4. Sudden Release of Pressure Hazard: NO
5. Reactivity Hazard: NO

16. OTHER INFORMATION

NFPA RATINGS: Health 1; Flammability 1; Reactivity 0; (Least-O, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

REVISION STATEMENT

Revises Section 3 (Exposure Controls/Personal Protection), Section 13 (Disposal Consideration), Section 14 (Transport Information), and Section 1, (Emergency Telephone Numbers).

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

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