

SAFETY DATA SHEET

Section 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Name: 4+ Polar Max
Product Code: IFS0243

1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Use: Premium Fuel Enhancer.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Name/Address: DSG Power Systems Inc.
230 29th Street East
Saskatoon, SK S7L 6Y6
Telephone Number: 1-800-667-6879

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone Number: CANUTEC: 613-996-6666 (24hr)

Section 2: HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE CHEMICAL ACCORDING TO OSHA HAZCOM 2012

Hazard class

Flammable Liquid 4
Acute toxicity 4 (Oral)
Skin irritation 2
Serious eye irritation 2A
Carcinogenicity 2

2.2 LABEL ELEMENTS ACCORDING TO OSHA HAZCOM 2012

Hazard Pictogram:



Signal Word: Warning

Hazard Statement: Combustible liquid. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. Suspected of causing cancer.

Prevention: Keep away from flames and hot surfaces. – No smoking. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.

Response: If swallowed: Immediately call a poison center/doctor. Rinse mouth. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

SAFETY DATA SHEET

Storage: Store in a well-ventilated place. Keep cool. Store locked up.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3 ADDITIONAL INFORMATION

Hazards not otherwise classified: Not applicable.

89 % of the mixture consists of ingredient(s) of unknown acute toxicity.

WHMIS Classification(s):

Class B3 - Combustible Liquid
 Class D2A - Carcinogenicity
 Class D2B - Skin/Eye Irritant

WHMIS Hazard Symbols:



WHMIS Signal Word: WARNING

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 MIXTURES

Ingredient	CAS No	Wt. %
Benzene, ethylenated, residues, distn. lights	178535-25-6	60 - 100
Soybean oil methyl ester	67784-80-9	5 - 10
Naphthalene	91-20-3	1 - 5
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	1 - 5
Ethylbenzene	100-41-4	0.1 - 1

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

Section 4: FIRST- AID MEASURES

4.1 DESCRIPTION OF THE FIRST AID MEASURE

Eye: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.

Skin: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a poison center/doctor.

Ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Immediately call a poison center/doctor.

SAFETY DATA SHEET

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Eye:** Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
- Skin:** Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
- Inhalation:** May cause respiratory tract irritation.
- Ingestion:** Harmful if swallowed. May cause stomach distress, nausea or vomiting.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED

- Note to Physicians:** Symptoms may not appear immediately.
- Specific Treatments:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).

Section 5: FIRE-FIGHTING MEASURES

5.1 FLAMMABILITY

- Flammability:** Combustible by WHMIS/OSHA criteria.

5.2 EXTINGUISHING MEDIA

- Suitable Extinguishing Media:** Powder, water spray, foam, carbon dioxide.
- Unsuitable Extinguishing Media:** Do not use water jet.

5.3 SPECIAL HAZARDS ARISING FROM THE CHEMICAL

- Products of Combustion:** May include, and are not limited to: oxides of carbon.
- Explosion Data:**
- Sensitivity to Mechanical Impact:** Not available.
 - Sensitivity to Static Discharge:** Not available.

5.4 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition. Avoid breathing vapour or mist.

6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING - UP

- Methods for Containment:** Stop leak if without risk. Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for Cleaning-Up:** Scoop up material and place in a disposal container. Provide ventilation.

SAFETY DATA SHEET

Section 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

- Handling:** Keep away from sources of ignition. No smoking. Avoid contact with skin and eyes. Do not swallow. Do not breathe gas/fumes/vapor/spray. Use only in well-ventilated areas. Handle and open container with care. When using do not eat or drink. (See section 8)
- General Hygiene Advice:** Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- Storage:** Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. (See section 10)

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Exposure Guidelines

Occupational Exposure Limits		
Ingredient	OSHA-PEL	ACGIH-TLV
Benzene, ethylenated, residues, distn. lights	Not available.	Not available.
Soybean oil methyl ester	5 mg/m ³ (mist)	5 mg/m ³ (mist)
Naphthalene	10 ppm	10 ppm
Solvent naphtha (petroleum), heavy aromatic	Not available.	Not available.
Ethylbenzene	100 ppm	20 ppm

8.2 EXPOSURE CONTROLS

- Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

8.3 INDIVIDUAL PROTECTIVE MEASURES

Personal Protective Equipment:

Eye/Face Protection: Safety glasses or goggles are recommended when using product.

Skin Protection:

Hand Protection: Chemical-resistant gloves.

Body Protection: Wear suitable protective clothing.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

General Health and Safety Measures: Handle according to established industrial hygiene and safety practices. Ensure that eyewash stations and safety showers are close to the workstation location.

SAFETY DATA SHEET

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear.
Color:	Colorless.
Odor:	Aromatic.
Odor Threshold:	Not available.
Physical State:	Liquid.
pH:	Not available.
Melting Point/Freezing Point:	-51.52 °C (-60.7 °F)
Initial Boiling Point and Boiling Range:	~ 218.75 °C (~ 425.8 °F)
Flash Point:	~ 70 °C (~ 158 °F) (CC)
Evaporation Rate:	0.01 (Butyl acetate = 1)
Flammability:	Combustible.
Lower Flammability/Explosive Limit:	0.6%
Upper Flammability/Explosive Limit:	7%
Vapor Pressure:	0.01 kPa / 0.08 mm Hg @ 20 °C (68 °F)
Vapor Density:	5.49 (Air = 1)
Relative Density/Specific Gravity:	0.91
Solubility:	Partial.
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition Temperature:	400°C (752°F)
Decomposition Temperature:	Not available.
Viscosity:	Not available.
Oxidizing Properties:	Not available.
Explosive Properties:	Not available.

Section 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

No dangerous reaction known under conditions of normal use.

10.2 CHEMICAL STABILITY

Stable under normal storage conditions. Keep in a cool place.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reaction known under conditions of normal use.

10.4 CONDITIONS TO AVOID

Heat. Incompatible materials.

SAFETY DATA SHEET

10.5 INCOMPATIBLE MATERIALS

Oxidizers. Fluorine.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

May include, and are not limited to: oxides of carbon.

Section 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Likely Routes of Exposure: Skin contact, eye contact, inhalation, and ingestion.

Symptoms related to physical/chemical/toxicological characteristics:

Eye: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Skin: Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Ingestion: Harmful if swallowed. May cause stomach distress, nausea or vomiting.

Inhalation: May cause respiratory tract irritation.

Acute Toxicity:

Ingredient	LC50	LD50
Benzene, ethylenated, residues, distn. lights	Not available.	Not available.
Soybean oil methyl ester	Not available.	Not available.
Naphthalene	Inhalation >0.4 mg/L 4 h, rat	Oral 490 mg/kg, rat Dermal >2500 mg/kg, rat Dermal >20 g/kg, rabbit
Solvent naphtha (petroleum), heavy aromatic	Inhalation >4.3 mg/L 4h, rat	Oral >5000 mg/kg, rat Dermal >2000 mg/kg, rabbit
Ethylbenzene	Inhalation 17.2 mg/L 4 h, rat	Oral 3500 mg/kg, rat Dermal 15354 mg/kg, rabbit

Calculated overall Chemical Acute Toxicity Values

LC50 (inhalation)	LD50 (oral)	LD50 (dermal)
Not available.	893 mg/kg, rat	>2000 mg/kg, rabbit

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)*
Benzene, ethylenated, residues, distn. lights	Not listed.
Soybean oil methyl ester	Not listed.
Naphthalene	G-A4, I-2B, N-2, CP65
Solvent naphtha (petroleum), heavy aromatic	Not listed.
Ethylbenzene	O, G-A3, I-2B, CP65

11.2 DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

Skin Corrosion/Irritation: Causes skin irritation.

Serious Eye Damage/Irritation: Causes serious eye irritation.

Respiratory Sensitization: Based on available data, the classification criteria are not met.

Skin Sensitization: Based on available data, the classification criteria are not met.

SAFETY DATA SHEET

STOT-Single Exposure:	Based on available data, the classification criteria are not met.
Chronic Health Effects:	
Carcinogenicity:	Suspected of causing cancer.
Germ Cell Mutagenicity:	Based on available data, the classification criteria are not met.
Reproductive Toxicity:	
Developmental:	Based on available data, the classification criteria are not met.
Teratogenicity:	Based on available data, the classification criteria are not met.
Embryotoxicity:	Based on available data, the classification criteria are not met.
Fertility:	Based on available data, the classification criteria are not met.
STOT-Repeated Exposure:	Based on available data, the classification criteria are not met.
Aspiration Hazard:	Based on available data, the classification criteria are not met.
Toxicologically Synergistic Materials:	Not available.
Other Information:	Not available.

Section 12: ECOLOGICAL INFORMATION

12.1 ECOTOXICITY

Acute/Chronic Toxicity: May cause long-term adverse effects in the aquatic environment.

12.2 PERSISTENCE AND DEGRADABILITY

Not available.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: Not available.

12.4 MOBILITY IN SOIL

Not available.

12.5 OTHER ADVERSE EFFECTS

Not available.

Section 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Disposal Method: This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

Other disposal recommendations: Not available.

Section 14: TRANSPORT INFORMATION

14.1 UN NUMBER

DOT
NA1993

TDG
UN3082

SAFETY DATA SHEET

14.2 UN PROPER SHIPPING NAME

DOT	TDG
Combustible liquid, n.o.s. (light ends of polyethylbenzene residue, naphthalene)	Environmentally hazardous substance, liquid, n.o.s. (light ends of polyethylbenzene residue)

14.3 TRANSPORT HAZARD CLASS (ES)

DOT	TDG
Combustible liquid	9

14.4 PACKING GROUP

DOT	TDG
III	III

14.5 ENVIRONMENTAL HAZARDS

Not available.

14.6 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

Not available.

14.7 SPECIAL PRECAUTIONS FOR USER

Do not handle until all safety precautions have been read and understood.

Section 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATIONS SPECIFIC FOR THE CHEMICAL

Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

US: MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

SARA Title III				
Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Benzene, ethylenated, residues, distn. lights	Not listed.	Not listed.	Not listed.	Not listed.
Soybean oil methyl ester	Not listed.	Not listed.	Not listed.	Not listed.
Naphthalene	Not listed.	Not listed.	100	313
Solvent naphtha (petroleum), heavy aromatic	Not listed.	Not listed.	Not listed.	Not listed.
Ethylbenzene	Not listed.	Not listed.	1,000	313

State Regulations

California Proposition 65:

This product contains chemicals known to the state of California to cause cancer.

SAFETY DATA SHEET

Global Inventories:

Ingredient	Canada DSL/NDSL	USA TSCA
Benzene, ethylenated, residues, distn. lights	DSL	Yes.
Soybean oil methyl ester	DSL	Yes.
Naphthalene	DSL	Yes.
Solvent naphtha (petroleum), heavy aromatic	DSL	Yes.
Ethylbenzene	DSL	Yes.

NFPA National Fire Protection Association:

Health:	2
Fire:	2
Reactivity:	0

HMIS-Hazardous Materials Identification System

Health:	2*
Fire:	2
Physical Hazard:	0

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

CP65 **California Proposition 65**

OSHA (O) **Occupational Safety and Health Administration.**

ACGIH (G) **American Conference of Governmental Industrial Hygienists.**

- A1 - Confirmed human carcinogen.
- A2 - Suspected human carcinogen.
- A3 - Animal carcinogen.
- A4 - Not classifiable as a human carcinogen.
- A5 - Not suspected as a human carcinogen.

IARC (I) **International Agency for Research on Cancer.**

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

NTP (N) **National Toxicology Program.**

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

Section 16: OTHER INFORMATION

Date of Preparation: August 20, 2013

Expiry Date: August 20, 2016

Version: 1.0

Revision Date: August 20, 2013

SAFETY DATA SHEET

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

Prepared by: Nexreg Compliance Inc.
Phone: (519) 488-5126
www.nexreg.com

Prepared for: DSG Power Systems Inc.

End of Safety Data Sheet