MATERIAL SAFETY DATA SHEET

(According to Regulation 453/2010 Annex 1)

PRODUCT NAME:

250ML DPF FILTRACTIV ACTIVATOR

Date: 24-01-13

1. IDENTIFICATION OF THE MIXTURE AND COMPANY

1.1. MIXTURE IDENTIFIER: 250ML DPF FILTRACTIV ACTIVATOR (DPF1)

1.2. RELEVANT IDENTIFIED USES OF THE MIXTURE AND NON- RECOMMENDED USES
Fuel consumption reducer
Any use other than the specified

1.3. MATERIAL SAFETY DATA SHEET SUPPLIER INFORMATION:

JRP Distribution Ltd.
Units 1&2
12 Peter Road
Lancing Business Park
Lancing
West Sussex
BN15 8TH

sales@jrpdistribution.co.uk

1.4. EMERGENCY PHONE:

01903-750355 (Office Hours Only)

2. IDENTIFICATION OF HAZARDS

2.1. MIXTURE CLASSIFICATION.
Classification according to RD 255/2003:

- Hazard Classification and pictograms: **F:** Highly flammable - **Xn:** Harmful
- R terms:
  - **R_{11}:** Highly Flammable
  - **R_{36}:** Irritating to eyes
  - **R_{65}:** Harmful if swallowed. May cause lung damage.
  - **R_{66}:** Repeated exposure may cause skin dryness or cracking
  - **R_{67}:** Vapours may cause drowsiness and dizziness.
  - **$R_{52/53}$:** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **S terms:**

S_2: Keep out of reach of children.
S_{16}: Keep away from flames or sparks. Do not smoke near the material.
S_{28}: In the event of skin contact, wash immediately with plenty of soap and water
S_{51}: Use only in well ventilated areas.
S_{61}: Avoid the release of substance to the environment. Refer to the special instructions of the material safety data sheet.
S_{62}: If swallowed, do not induce vomiting: seek immediate medical attention and show medical personnel this container or label.

2.3. OTHER HAZARDS
No more data is available

3. COMPOSITION / INFORMATION OF COMPONENTS

3.1. SUBSTANCE
Not applicable.

3.2. MIXTURE
Composition according to Royal Decree 255/2003 and DPD Directive 1999/45/EC:

Name	CAS No.	EINECS No.	Symbols	R Terms	Concentration
n-Decane	124-18-5	204-686-4	X_n, X	R_{10}, R_{65}, R_{66}	C < 75%
2-propanol	67-63-0	200-661-7	F, F –X_i, X	R_{11}, R_{36}, R_{67}	C < 25%
Solvent naphtha (petroleum), heavy aromatic	64742-94-5*	265-198-5	X_n, X - N, N	R_{65}, R_{66}, R_{67}, $R_{51/53}$	C < 2%
2-Ethylhexyl nitrate	27247-96-7	248-363-6	X_n, X - N, N	R_{20}, R_{44}, R_{65}, $R_{51/53}$	C < 2%

* Note P is applicable. Benzene concentration <0.1% weight

Composition according to Regulation 1272/2008:

Name	CAS No.	EC No.	Pictogram-Hazard Indication	Hazard Classification-Category	H Terms	Concentration
n-Decane REACH Registration No.: 01-2119474199-26-0003	124-18-5	-	 Hazard	Flammable liquid. Cat. 3 Acute Toxic inhalation. Cat.1	H226 H304 EUH066	C < 75%
2-propanol REACH Registration No.: 01-2119457558-25-0002 01-2119457558-25-0001	67-63-0	603-117-00-0	 Hazard	Flammable liquid. Cat. 2 Severe eye irritation Cat. 2 STOT single exp. Cat. 3	H225 H319 H336	C < 2%

The full text of the H and R terms and other abbreviations can be seen in Point 16. "Other Information"

4. FIRST AID

4.1. FIRST AID INSTRUCTIONS

Eye Contact: Flush thoroughly with water for at least 15 minutes while maintaining eyelids open. Remove contact lenses, if the case and if easy to do so. Continue flushing eyes. Seek medical attention

Skin contact: Take off the contaminated clothing and shoes, and take into account the possible generation of static electricity. Wash affected areas immediately and with plenty of soap and water. If irritation persists, seek medical attention.

Inhalation: Take the injured person outdoors and keep the person at rest. If he is not breathing, if breathing is irregular or if respiratory arrest occurs, the trained staff should provide artificial respiration or oxygen. Mouth-to-mouth resuscitation may be hazardous to the person administering aid. Seek medical attention and if necessary, call a poison control centre or a doctor. Keep the patient covered, warm and at rest. If unconscious, place in recovery position and seek immediate medical attention. Ensure proper air circulation. In polluted environments, the person providing assistance must be protected by the appropriate respiratory face mask.

Ingestion: Provide immediate medical attention. Call a poison control center or doctor. Rinse mouth with water. Move victim to an area with fresh air and keep him at rest in a position comfortable for breathing, covered and warm. If material has been consumed and the person is conscious, give him small quantities of water to drink. Stop providing water if the person is in poor condition, given that vomiting may be dangerous. Inhalation hazard if swallowed. It may enter lungs and cause damage. Do not induce vomiting.

If vomiting occurs, keep head low so that the vomit does not enter the lungs. Never administer anything orally when the person is unconscious. If unconscious, place the person in a recovery position and seek immediate medical attention. Ensure proper air circulation. Loosen any tight articles of clothing, such as a collar, tie, belt or waistband.

Protection of first-aid responders:

No action involving personal risk or without suitable training should be taken. If it is suspected that fumes are still present, the first-aid responder should wear an appropriate mask or self-contained breathing apparatus. Mouth-to-mouth resuscitation may be hazardous to the person administering aid.

4.2. MAIN SYMPTOMS AND EFFECTS, ACUTE AND DELAYED

Eye Contact: Not classified as irritating to eyes, no significant known effects or critical hazards. May cause irritation in the event of prolonged or frequent contact.

Skin contact: Skin degreaser. Adverse symptoms may include the following: dryness, irritation and cracking of skin.

Inhalation: May cause depression of central nervous system (CNS). May cause drowsiness or dizziness. Adverse symptoms may include the following: nausea or vomiting, headache, drowsiness / fatigue, dizziness / vertigo or unconsciousness.

Ingestion: May cause depression of central nervous system (CNS). May be fatal if swallowed and if it enters the airways. Adverse symptoms may include the following: nausea or vomiting

4.3. INDICATION OF ANY MEDICAL ATTENTION AND SPECIAL TREATMENT THAT MUST BE IMMEDIATELY AVAILABLE

See: Point 4.1 "First Aid Instructions"

The severity of injuries and the prognosis of intoxication will depend directly on the concentration and duration of exposure

Notes to physician: Treat symptomatically. Contact a treatment specialist immediately if a large quantity is ingested or inhaled.

Specific treatments: There is no specific treatment

5. FIRE FIGHTING MEASURES

5.1. FIRE EXTINGUISHING RESOURCES:

Foam, dry chemical, carbon dioxide, and water spray extinguishers. DO NOT USE WATER JET EXTINGUISHERS.

5.2. SPECIAL HAZARDS ARISING FROM THE MIXTURE:

Hazards arising from the substance or mixture: Flammable liquids and vapours. . Vapour may ignite. Explosive mixtures with gas and air may occur. An incomplete combustion may release toxic gases. . The vapours of the product are heavier than air and will spread along the floor surface, giving rise to a potential remote ignition. The pressure may increase and the container may burst if heated or in the event of a fire. Any liquid waste seeping into the sewer may create fire or explosion. Prevent the water used to extinguish the fire, and that is now contaminated, from entering the waterways, drains or sewers.

Hazardous thermal decomposition products:

Carbon oxides (CO yCO2), fumes, gases.

5.3. FIRE FIGHTING RECOMMENDATIONS

Special measures to be taken by fire fighting personnel

In the event of fire, isolate the area quickly and evacuate staff from the vicinity of the incident. No action involving personal risk or without suitable training should be taken. Move containers from fire area if this can be done without risk. Use water spray to cool containers exposed to the fire.

Special protective equipment for fire fighting personnel

Use full-body protective clothing and self contained breathing apparatus

Fire fighting measures

Explosive mixtures with air may occur.

5.4. OTHER RECOMMENDATIONS

In the event of fire, apply water spray to cool containers and product storage tanks susceptible to flash and explosion due to high temperatures.

6. MEASURES TO TAKE IN THE EVENT OF AN ACCIDENTAL SPILL

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

Isolate the area. Prevent further spillage. Provide adequate ventilation. See Section 8

For non-emergency personnel

No action involving personal risk or without suitable training should be taken. Evacuate the area. Do not allow the unnecessary and unprotected personnel to enter the area. Do not touch or walk through spilled material. Avoid contact with skin and eyes. Do not inhale vapour. Eliminate sources of ignition. Avoid sparks. Do not smoke in the area. Take precautionary measures against static discharge. Use the appropriate personal protective equipment

For emergency response personnel

Use suitable protective clothing and gloves. Use self-contained breathing apparatus to avoid inhalation of the product. Use safety goggles or face shield when product projections are anticipated. Take precautionary measures against static discharge. For more information on respiratory protection, see section 8.

6.2. ENVIRONMENTAL PRECAUTIONS:

Prevent further spillage. Avoid contamination of drains, surface and groundwater and soil, otherwise notify local authorities. Collect spillage. Force the gases / fumes / mist to precipitate by water spray.

6.3. CONTAINMENT AND CLEANING METHOD AND EQUIPMENT

Contain spilled liquid with sand or earth or any noncombustible absorbent material. Store the remains in a suitable waste container. Use spark-proof tools and explosion proof equipment. Thoroughly clean contaminated surfaces with detergent solution. Contaminated absorbent material may pose the same hazard as the spilled product. The recovered product must be disposed of in accordance with local regulations

6.4. REFERENCE TO OTHER SECTIONS

See: Point 8. "Exposure Controls / Personal Protection" and Point 13. "Disposal Considerations"

7. HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING:

Protection measures

Use appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid inhalation of vapour or mist. Avoid the release of substance to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container. Keep away from heat, sparks, flame or any other ignition source. Use explosion proof electrical equipment (for ventilation, lighting and material handling). Use non-spark producing tools only. Take precautionary measures against electrostatic discharges. Restrict the line speed during pumping to avoid the generation of electrostatic discharges. Do not use compressed air. Empty containers retain product residue and may be dangerous. Do not reuse container.

General occupational hygiene information

DO NOT eat, drink or smoke in areas where this material is stored and processed. The personnel working with this product should wash hands and face before eating, drinking or smoking. Remove protective equipment and contaminated clothing before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2. SAFE STORAGE CONDITIONS, INCLUDING POSSIBLE INCOMPATIBILITIES:

Store in a separate and approved area, away from direct sunlight, ignition sources and other sources of heat. Store in original container protected from direct sunlight in a dry, cool, well-ventilated area, away from incompatible materials (see section 10). Store in tightly closed and labelled containers until ready for use. Open containers must be carefully resealed and kept upright to prevent leakage. Eliminate all sources of ignition. Store away from aerosols, flammables, oxidizing agents and corrosive materials. Do not store in unlabeled containers. The vapor is heavier than air. Prevent its accumulation in pits and confined spaces.

7.3. SPECIFIC END USES

Gasoline additive

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. CONTROL PARAMETERS:

Exposure limit values: Not available for the mixture.

- **Decane (CAS 124-18-5):** TWA (8h) = 1200 mg/m3.
- **Isopropyl alcohol (CAS 67-63-0):** VLA-ED (TWA): 998 mg/m3, 400 ppm. VLA (ES). VLA-EC (STEL): 1250 mg/m3, 500 ppm. VLA (ES).

TWA: 200 ppm. ACGIH - 2005.

STEL: 400 ppm. ACGIH - 2005.

8.2. EXPOSURE CONTROL

General measures: Use only with adequate ventilation. Isolate production process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. If this product contains components with exposure limits, personal or biological supervision of the workplace atmosphere may be necessary to determine the effectiveness of the ventilation or other control measures and / or the necessity to use respiratory protective equipment. Ensure that eyewash stations and safety showers are near the workstation.

Eye / face protection: Use safety goggles or face shield when product projections are anticipated.

Skin Protection (hands): Chemical-resistant and impervious gloves complying with an approved standard should be worn at all times when handling products

Impervious gloves made from the following materials may provide suitable chemical protection: natural rubber and butyl rubber for long-term protection. Gloves should be inspected for wear, holes or contamination.

Respiratory protection: Provide exhaust and ventilation in material transfer points. If operating conditions cause high vapour concentrations or TLV is exceeded, use full respirator. When air-filtering respirators are not adequate, use self contained breathing apparatus.

Environmental exposure controls:

General: Do not flush into surface water or sanitary sewer system.
Air: Avoid air emissions
Soil: Avoid subsoil penetration.
Water: Do not let product enter sewer system.

Carry out an assessment of emissions from ventilation equipment or work processes to verify that they comply with the requirements of the legislation of environmental protection

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. GENERAL INFORMATION

Appearance: Liquid
Colour: Light yellow
Odor: Characteristic

9.2. IMPORTANT INFORMATION REGARDING HEALTH, SAFETY AND THE ENVIRONMENT

pH at 20ºC: Not applicable
Density at 20 ° C: 0.745 ± 0.010 g/cm3
Solubility in water: Insoluble

9.3. VOLATILE ORGANIC COMPOUND (VOC)

- **Isopropyl alcohol (CAS 67-63-0):**
  VOC content (w / w): 59.9% (CE/1999/13)

10. STABILITY AND REACTIVITY

10.1. REACTIVITY: No test data is available specifically related to reactivity for this product or its components.

10.2. CHEMICAL STABILITY: Stable under recommended storage

10.3. POSSIBILITY OF HAZARDOUS REACTIONS: Reacts with strong oxidizing agents.

10.4. CONDITIONS TO AVOID: Avoid all possible sources of ignition (spark or flame). Do not pressurize containers or expose them to heat or heat sources.

10.5. INCOMPATIBLE MATERIAL: Reactive or incompatible with oxidizing materials.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition depends largely on the conditions. A complex mixture of solid, liquid and airborne gases, including carbon monoxide and other organic compounds are released when the material undergoes combustion or thermal degradation.

11. TOXICOLOGICAL INFORMATION

11.1. TOXICOLOGICAL DATA:

Acute toxicity: No experimental data is available in the mixture itself regarding the toxicological properties

Ingredient Name	Result	Species	Dosage	Exposure
Decane (CAS 124-18-5)	LD50 Dermal	Rat	> 2000 mg/Kg	-
	DL50 Oral	Rat	> 5000 mg/Kg	-
Isopropyl alcohol (CAS 67-63-0)	DL50 Oral	Rat	> 2000 mg/Kg	
	LD50 Dermal	Rabbit	> 2000 mg/Kg	
	IC50 Inhalation	Rat	> 5 mg/l	

Hazardous health effects:

- **Ingestion:** May cause depression of central nervous system (CNS). May be fatal if swallowed and if it enters the airways.
- **Inhalation:** May cause depression of central nervous system (CNS). May cause drowsiness or dizziness.
- **Skin:** This mixture is a degreasing agent of the skin. May cause dryness or irritation
- **Ocular:** This mixture is not classified as an irritant of the eyes, but prolonged or frequent exposure may cause irritation.
- **Sensitization:** The mixture is not classified as hazardous with sensitizing effects
- **Mutagenicity:** The mixture is not classified as hazardous with mutagenic effects
- **Carcinogenicity:** The mixture is not classified as hazardous with carcinogenic effects
- **Reproductive toxicity:** The mixture is not classified as hazardous with reproductive toxicity effects
- **Teratogenicity:** The mixture is not classified as hazardous with this effect
- **Specific target organ toxicity-single exposure:** The mixture is not classified as hazardous with this effect
- **Repeated dose toxicity:** The mixture is not classified as hazardous with this effect

12. ECOLOGICAL INFORMATION

General information on environmental effects

Avoid large-scale contamination of soil and water. Avoid atmospheric emissions.
If the product has entered watercourse or sewer or has contaminated the ground or vegetation, notify local authorities

12.1. ACUTE TOXICITY:

Experimental data of the mixture in relation to the ecotoxicological properties is not available

Ingredient Name	Result	Species	Exposure
Isopropyl alcohol (CAS 67-63-0):	LC/ECI/IC50 > 100 mg/l	Fish	-
	LC/ECI/IC50 > 1000 mg/l	Aquatic invertebrates	-
	LC/ECI/IC50 > 1000 mg/l	Algae	-
	LC/ECI/IC50 > 1000 mg/l	Microorganisms	-

12.2. PERSISTENCE/ DEGRADABILITY:

- **Decane (CAS 124-18-5):** Photolysis (n-Decane): <28 days / days
- **Isopropyl alcohol (CAS67-63-0):** Readily biodegradable, meets the criteria of 10 days. . It oxidizes rapidly when exposed to the air by photochemical reactions

12.3. BIOACCUMULATION POTENTIAL

- **Decane (CAS 124-18-5):** Low potential for bioaccumulation. log Pow: > 1
- **Isopropyl alcohol (CAS67-63-0):** Significant bioaccumulation is not expected.

12.4. MOBILITY
Not available

12.5 RESULTS OF PBT and vPvB
Not available

12.6. OTHER ADVERSE EFFECTS:
Avoid seepage into ground water, surface water or sewage system. A minimum quantity poured in the subsoil already represents a danger to drinking water. Spills may infiltrate the soil causing ground water contamination.

13. DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS
General Information: The generation of waste should be avoided or minimized wherever possible. Do not use sewage waste systems to dispose of significant amounts of product waste. These must be processed in a suitable wastewater treatment plant. Dispose of the product waste and the containers thereof, implementing all possible precautions.

Product: Do not discharge into drains. Dispose of material along with inert material (sand, etc.) in sealed containers that are appropriate for such purpose. Disposal should be in accordance with local regulations.

Containers and packaging: Precautions should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain product residues. Vapour from product residues may create a highly flammable or explosive atmosphere in the container Disposal should be in accordance with current legislation on waste and by authorized personnel. If in doubt consult with the local authority

14. TRANSPORT INFORMATION

14.1. UN NUMBER: UN3295
14.2. OFFICIAL UNITED NATIONS SHIPPING NAME: Liquid hydrocarbons nes (Decane-isopropanol)
14.3 HAZARD CLASSIFICATION: 3. Flammable
14.4. PACKING GROUP: III
14.5. ENVIRONMENTAL HAZARDS:
Water Contaminant: YES
14.6. SPECIAL PRECAUTIONS FOR USERS

Label: 3
Hazard Classification: 30

14.7. BULK TRANSPORT UNDER ANNEX II OF THE MARPOL73/78 CONVENTION AND IBC CODE 4

15. REGULATORY INFORMATION

15.1. SPECIFIC REGULATION AND LEGISLATION ON SAFETY, HEALTH AND ENVIRONMENT FOR THE MIXTURE:

Royal Decree 1054/2002, of 11 October, which regulates the evaluation process for the registration, licensing and marketing of biocides and its amendments.
REACH Regulation (EC) No. 1907/2006 of the European Parliament and of the Counsel, of 18 of December relating to the registration, evaluation, licensing and restriction of chemical substances and preparations.
Directive 1999/45/EC of the European Parliament and of the Council of May 31 on the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations, and its amendments.
Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of December 16 relating to the classification, labelling and packaging of substances and mixtures.
Substance classified according to Directive 96/82/EC of the Council adopting measures to control the risks inherent in major accidents involving dangerous substances.
Directive 98/24/EC of the Council of 7 April on the protection of the health and safety of workers from the risks related to chemical agents at work, and its amendments.
Law 31/1995 of November regarding occupational risk prevention - Environmental Limit Values (ELV or VLA for simplicity) Occupational Exposure Limits for Chemical Agents (INSH - National Institute Occupational Safety and Health), and its amendments

15.2 CHEMICAL SAFETY EVALUATION

A chemical safety evaluation has not been performed on this mixture.

16. OTHER INFORMATION

Abbreviations used	**ADR:** Agreement on Road Transport of Dangerous Goods **CLP:** Regulation 1272/2008 on Classification, Labelling and Packaging of mixtures **VOC:** Volatile Organic Compounds **DNEL:** Maximum exposure level for people **NOAEL:** Maximum exposure level without any observed adverse effects **NOEC:** Maximum concentration without any observed adverse effects **vPvB:** Very persistent and very bioaccumulative **PBT:** Persistent, bioaccumulative and toxic. **STOT:** Specific target organ toxicity
Full text of H terms (Points 2 and 3)	H225 Highly flammable liquid and vapour H226: Flammable liquids and vapours. H304: May be fatal if swallowed and if it enters the airways. H319: Causes serious eye irritation. H336: May cause drowsiness or dizziness. EUH 066: Repeated exposure may cause skin dryness or cracking of the skin.
Full text of R terms (Point 3)	R10: Flammable R11. Highly flammable R20: Harmful by inhalation R36: Irritating to eyes R36/38: Irritating to eyes and skin R44: Risk of explosion if heated in a confined environment R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R65: Harmful if swallowed. May cause lung damage. R66: Repeated exposure may cause skin dryness or cracking of the skin. R67: Vapours may cause drowsiness and dizziness.
Modifications to the last revision	-

NOTE: This data sheet was prepared with data believed to be accurate, based on information from our raw material suppliers.

This information only relates to the above mentioned mixture and may not be valid for such product when used in combination with other products, or under any process. There is no guarantee that this information is sufficient or correct in its application in all cases.