

Safety Data Sheet

Material Name: Performance Formula®

ID: 2601

***** Section 1 – Identification of Product and of the Company *******Product Numbers:** 38564F(24/235 ml); 38565F/I/S (12/470 ml); 38566F/I/S (6/1.9 l); 38567F/I/S (1/19 l); 38568F/I/S (1/208 l)**Chemical Name:** Mixture**Product Use:** Diesel Fuel Additive**Company Information**

Stanadyne SpA

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Phone: 39-030-2130070

Emergency #: CHEMTREC – 00-1-703-527-3887 (24 hours)

For further information about the content of this Safety Data Sheet, contact additives@Stanadyne.com***** Section 2 – Hazards Identification *******Emergency Overview**

WARNING Flammable liquid and vapour.

Harmful: may cause lung damage if swallowed. Harmful by inhalation and in contact with skin. Vapours are irritating to the respiratory system. This product may be irritating to the eyes and skin. Excessive inhalation of this material may cause headache, dizziness and incoordination. This product may cause nervous system effects including peripheral neuropathy. Irritating and toxic vapors may be released upon combustion of product. Extinguish fire with carbon dioxide, dry chemical, foam or water fog. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

***** Section 3 - Composition / Information on Ingredients *****

CAS #	EINECS #	Component	Percent	Classification
64742-47-8	264-149-8	Distillates, petroleum, hydrotreated, light	30-50	Xn; R65
27247-96-7	248-363-6	2-Ethylhexyl nitrate	20-30	Xn; R20/21
64742-94-5	265-198-5	Solvent naphtha (petroleum), heavy aromatic*	10-30	R10 – Xi; R37 – R65 – R66 – N; R51/53
111-76-2	203-905-0	2-Butoxyethanol	3-7	Xn; R20/21/22 – Xi; R36/38
25551-13-7	247-099-9	Trimethylbenzene	1-3	R10 – Xi; R36/37/38 – N; R51/53
91-20-3	202-049-5	Naphthalene	1-2	Carc. Cat. 3; R40 – Xn; R22 – N; R50/53

*Refer to Section 16 for relevant risk phrases.***The benzene content, if any, in this substance is less than 20 ppm.****** Section 4 - First Aid Measures *******First Aid: Eyes**

Quickly and gently blot away excess chemical. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes or until the chemical is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Seek immediate medical attention.

First Aid: Skin

Remove contaminated clothing. Quickly and gently blot away excess chemical. Wash gently and thoroughly with warm water and non-abrasive soap for 20 minutes or until the chemical is removed. Get medical attention if skin disorder develops.

First Aid: Ingestion

Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 8 to 10 oz of water to dilute material in stomach. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Repeat administration of water. Seek immediate medical attention or advice.

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First Aid: Inhalation

If affected, remove source of contamination or move individual to fresh air. If the affected person is not breathing, trained personnel should begin artificial respiration immediately. Seek medical attention if symptoms persist. If overcome by vapor from hot product, immediately remove to fresh air and call a physician.

First Aid: Notes to Physician

Pulmonary aspiration hazard if swallowed; treat symptomatically.

*** Section 5 - Fire Fighting Measures ***

Flash Point: 51.18° C (by Pensky Martens Closed Cup)

General Fire Hazards

Fire and explosion hazards are moderate when this product is exposed to heat or flame. Liquid can burn upon heating to temperatures at or above the flash point. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back.

Hazardous Combustion Products

Irritating and toxic gases or fumes may be released during a fire. Upon combustion, this product may yield oxides of nitrogen, carbon monoxide, carbon dioxide, and/or other low molecular weight hydrocarbons.

Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog. Use water to cool fire-exposed containers and to protect personnel. Direct water spray or foam may cause frothing and spattering. If a leak or spill has not ignited, use water spray to disperse vapors and to flush spills away from exposure.

Fire Fighting Equipment/Instructions

Firefighters should wear full-face, self-contained breathing apparatus and impervious protective clothing. Firefighters should avoid inhaling any combustion products.

*** Section 6 - Accidental Release Measures ***

Containment Procedures

Stop the flow of material, if this can be done without risk.

Clean-Up Procedures

Absorb with non-flammable suitable absorbent such as sand or earth. Scoop up used absorbent into drums or other appropriate container.

Evacuation Procedures

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Special Procedures

Eliminate all sources of ignition or flammables that may come into contact with a spill of this material. Surfaces may become slippery after spillage. Wear appropriate protective equipment and clothing during clean-up. Do not allow the product to enter public drainage systems or open water courses. If product is spilled, notify appropriate authorities at the local and federal levels.

*** Section 7 - Handling and Storage ***

Handling Procedures

Avoid prolonged or repeated skin contact with this material. Avoid getting this material into contact with your eyes. Avoid the generation of oil mists. Wash thoroughly after handling. Use this product with adequate ventilation. Discard any shoes or clothing items that cannot be decontaminated.

Storage Procedures

Do not store near heat, sparks, open flame or strong oxidizing agents. Do not store this material in open or unlabeled containers. Store drums in covered area with secondary containment. "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; they may explode. Follow appropriate grounding procedures.

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*** Section 8 - Exposure Controls / Personal Protection ***

Exposure Guidelines

A: General Product Information

Follow all applicable exposure limits. Supplier recommends a permissible exposure limit (PEL) of 5 mg/m³ and a short-term exposure limit (STEL) of 10 mg/m³ under conditions that may generate oil mists. In addition to the value indicated below, industrial hygienists should consult applicable exposure limits of the country where the product is used.

B: Component Exposure Limits

Compound	ACGIH		Germany	United Kingdom	EU - IOEL
	TWA	STEL	MAK	WEL	OEL
Distillates, petroleum, hydrotreated, light	N/E	N/E	N/E	N/E	N/E
2-Butoxyethanol	20 ppm (S)	N/E	20 ppm (S)	25 ppm (S)	20 ppm
Trimethylbenzene	25 ppm	N/E	N/E	25 ppm	20 ppm
Naphthalene	10 ppm	15 ppm	10 ppm	N/E	N/E

(S) – skin exposure

(C) – carcinogen

N/E – none established

Engineering Controls

Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear safety glasses. Wear chemical goggles or faceshield if mist is likely to occur.

Personal Protective Equipment: Skin

Use impervious gloves. Wear oil-impervious garments if contact is unavoidable.

Personal Protective Equipment: Respiratory

In the event of excessive exposure to vapors/mists/fumes, use approved respiratory equipment. Respirator should be selected on the basis of form and concentration of contaminant.

Personal Protective Equipment: General

Use good hygiene when handling petroleum product. Launder contaminated clothing before reuse. Excessive misting may cause slippery floors - wear appropriate footwear. Eye wash fountains are recommended.

*** Section 9 - Physical & Chemical Properties ***

Appearance: Amber colored
Physical State: Liquid
Solubility (H₂O): Negligible

Odor: Oil / solvent
Specific Gravity: 0.85

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

Stable

Incompatibility

This product may react with strong oxidizing agents.

Hazardous Decomposition

Decomposition of this product may yield oxides of nitrogen, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Hazardous Polymerization

Hazardous polymerization will not occur.

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*** Section 11 - Toxicological Information ***

No data available on product as a whole.

CAS #	Component	Percent	LD50 – Oral (rat)	LD50 – Dermal (rabbit)	LC50 – Inhalation (rat)
64742-47-8	Distillates, petroleum, hydrotreated, heavy	30-50	> 5000 mg/kg	> 2000 mg/kg	> 4.3 ml/l (4H)
111-76-2	2-Butoxyethanol	3-7	470 mg/ kg	220 mg/kg	450 ppm (4H)
25551-13-7	Trimethylbenzene	3-7	8970 mg/kg	Not available	Not available
91-20-3	Naphthalene	1-3	490 mg/kg	> 20 g/kg	> 340 mg/m3 (1H)

Potential Health Effects: Eyes

This product may be irritating to the eyes. Effects may include a burning sensation, redness, swelling and/or blurred vision.

Potential Health Effects: Skin

This product may be irritating to the skin. Prolonged or repeated contact with this product may dry and/or defat the skin. Symptoms may include redness, edema, drying or cracking of skin. Blisters and sores may develop. Product contains component(s) that can be harmful if absorbed through the skin.

Potential Health Effects: Ingestion

This product is harmful if swallowed. May cause irritation of the mouth, gastrointestinal lining, nausea, vomiting, diarrhea, and abdominal pain. Ingestion of this product may cause headache, dizziness, uncoordination, and general weakness. Small amounts of this product, if aspirated into the lungs, may cause mild to severe pulmonary injury, possibly death. Ingestion of this product may cause red blood cell hemolysis and possible liver and kidney injury.

Potential Health Effects: Inhalation

Harmful if inhaled. Inhalation of oil mists or fumes can cause irritation of the mucous membranes and upper respiratory tract.

Excessive inhalation of this material causes headache, dizziness, nausea, stupor, and other central nervous system effects leading to visual impairment, difficulty breathing, memory loss, convulsions and uncoordination. Overexposure to organic nitrates by inhalation may cause headache, nausea and decreased blood pressure. Repeated and prolonged overexposure to oil mists may result in droplet deposition, oil granuloma formation, inflammation and increased incidence of infection. Breathing of vapor or mist may aggravate asthma and inflammatory or fibrotic pulmonary disease. Repeated overexposure to naphthalene may cause destruction of red blood cells with anemia, fever, jaundice and kidney and liver damage.

*** Section 12 - Ecological Information ***

No ecotoxicity or environmental fate data available on product as a whole.

CAS #	Component	Percent	LC50 – 96 hr - mg/L	EC50 Water flea - mg/L	EC 50 photobacterium phosphoreum mg/L
111-76-2	2-Butoxyethanol	3-7	Bluegill-1490	(24 hr) 1720	Not available
91-20-3	Naphthalene	1-3	Fathead minnow- 6.14	(48 hr) 2.16-8.6	(30 min) 0.93

*** Section 13 - Disposal Considerations ***

Disposal Instructions

Dispose of waste material according to local and federal environmental regulations. Do not allow this material to drain into sewers/water supplies. Material should be recycled if possible.

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*** Section 14 – Transportation Information ***

General Transportation Information

NOTE: Information in this section (Section 14) is presented as a guide only. Requirements may vary depending upon package size and exceptions used, if any. Follow current, applicable requirements under ADR/RID, IMO/IMDG, ICAO/IATA to ensure regulatory compliance.

ADR/RID

UN1268, Petroleum distillates, n.o.s., 3, PGIII, ADR, Aquatic Pollutant (Alkyl C7-C9 Nitrate, petroleum naphthas)

Label: Flammable liquid

Hazard Identification Number: 30

International Transportation Regulations

ICAO/IATA

UN1268, Petroleum distillates, n.o.s., 3, PGIII, (petroleum naphthas)

Label: Flammable liquid.

IMO/IMDG

UN1268, Petroleum distillates, n.o.s., 3, PGIII, (51.1°C c.c.) Marine Pollutant (Alkyl C7-C9) Nitrate, petroleum naphthas)

EmS: F-E, S-E

Label: Flammable liquid

*2-Ethylhexyl nitrate is included in the group of substances covered by Alkyl C7-C9 Nitrate.

*** Section 15 – Regulatory Information ***

European Regulations

All components of this product are listed in the EINECS Inventory or exempt from listing.

Classification*

Carc. Cat. 3; R40 – Xn; R20/21 – Xi; R37 – R65; R10; N: R51/53

R40 - Limited evidence of a carcinogenic effect.

R20/21 - Harmful by inhalation and in contact with skin

R37 - Irritating to respiratory system

R65 - Harmful: may cause lung damage if swallowed

R10 - Flammable

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety Phrases

S1/2 – Keep locked up and out of the way of children

S13 – Keep away from food and drink

S36/37 – Wear suitable protective clothing and gloves

S51 – Use only in well-ventilated areas

S56 – Dispose of this material and its container to hazardous or special waste collection point

S62 – If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label

*** Section 16 - Other Information ***

Risk phrase key

R10 Flammable

R20/21 Harmful by inhalation and in contact with skin

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed

R22 Harmful if swallowed

R36/38 Irritating to eyes and skin

R36/37/38 Irritating to eyes, skin and respiratory system

R37 Irritating to respiratory system

R40 Limited evidence of a carcinogenic effect.

R65 Harmful: may cause lung damage if swallowed

R66 Repeated exposure may cause skin dryness or cracking

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Revisions: Section 14.

Other Information

The information and recommendations presented in this Safety Data Sheet are based on sources believed to be reliable on the date hereof. Stanadyne Corporation makes no representation on its completeness or accuracy. This product is sold "as is" and it is the user's responsibility to determine the product's suitability for its intended use, the product's safe use, and the product's proper disposal. The statements and descriptions provided are informational only and no representations or warranties, either expressed or implied, of merchantability or fitness for a particular purpose or of any other nature are made with respect to the information provided in this Safety Data Sheet or to the product to which such information refers. Stanadyne Corporation neither assumes nor authorizes any other person to assume for it, any other or additional liability or responsibility resulting from the use of, or reliance upon, this information. Stanadyne Corporation assumes no responsibility for injury to recipient or to third persons or for any damage to any property and recipient assumes all such risks.

Key/Legend

N = No; Y = Yes; ppm - parts per million; mg/m³ = milligrams per cubic meter of air; ACGIH = American Conference of Governmental Industrial Hygienists; TLV = Threshold Limit Value; TWA = Time Weighted Average; STEL = Short-term Exposure Limit; MAK = Maximale Arbeitsplatzkonzentrationen; IOEL = Indicative occupational exposure limit; NTP = National Toxicology Program; IARC = International Agency for Research on Cancer; TSCA = Toxic Substance Control Act; DSL = Dangerous Substances List; EINECS = European Inventory of New and Existing Chemical Substances

Contact: For further information call 39-030-2130070 or additives@Stanadyne.com

This is the end of SDS # 2601