

SAFETY DATA SHEET

1. Identification

Product identifier	NOS® Racing Formula Octane Booster		
Other means of identification			
Synonyms	12012		
Recommended use	Fuel Additive		
Recommended restrictions	None known.		
Manufacturer/Importer/Supplier/Distributor information			
Manufacturer			
Company name	ITW Permatex Canada		
Address	35 Brownridge Road, Unit 1 Halton Hills, ON L7G 0C6 Canada		
Telephone	Phone:	1-905-693-8900	
e-mail	Not available.		
Emergency phone number	Emergency Telephone:	1-877-504-9352	
Supplier	Not available.		

2. Hazard identification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.
Label elements	
Hazard symbol	None
Signal word	None
Hazard statement	The product and/or mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Other hazards	None known.
Supplemental information	This product is not subject to the Hazardous Products Act (HPA) Part II (Hazardous Products) as per paragraph 12(j); Schedule 1 (Non-Application of Part II). Exempt - Consumer product

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Kerosene		8008-20-6	60 - 100
Distillates (petroleum), light hydrotreated		64742-47-8	3 - 7
Solvent naphtha (petroleum), heavy aromatic		64742-94-5	3 - 7
Methyl cyclopentadienyl manganese tricarbonyl		12108-13-3	3 - 7
Stoddard solvent		8052-41-3	3 - 7

Composition comments This product is regulated under the CCCR Criteria (Consumer Chemicals and Containers Regulations, 2001). WHMIS requirements are not applicable.

4. First-aid measures

Inhalation	If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.
Skin contact	Immediately flush with cool water for 15 minutes while removing contaminated clothing and shoes. Discard or wash well before reuse. Obtain medical attention if irritation persists.
Eye contact	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.
Ingestion	Obtain medical attention immediately. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing.
Most important symptoms/effects, acute and delayed	Harmful if inhaled. May cause drowsiness or dizziness. Aspiration may cause pulmonary oedema and pneumonitis. Symptoms may include stomach distress, nausea or vomiting. Components of the product may be absorbed into the body through the skin. Symptoms may include redness, oedema, drying, defatting and cracking of the skin. Symptoms may include stinging, tearing, redness, swelling of the eyes, and blurred vision.
Indication of immediate medical attention and special treatment needed	Symptoms may be delayed.
General information	Immediate medical attention is required. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Keep away from sources of ignition. No smoking. Avoid contact with eyes and skin. Wear rubber gloves and safety glasses with side shields. Keep out of reach of children.

5. Fire-fighting measures

Suitable extinguishing media	Dry chemical. Carbon dioxide. Foam. Water spray or fog.
Unsuitable extinguishing media	Not available.
Specific hazards arising from the chemical	Firefighters should wear a self-contained breathing apparatus.
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Methods and materials for containment and cleaning up	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.
Environmental precautions	Do not discharge into lakes, streams, ponds or public waters.

7. Handling and storage

Precautions for safe handling	Use good industrial hygiene practices in handling this material. DO NOT get in eyes, on skin or clothing. Use only with adequate ventilation. Avoid breathing vapours or mists of this product. Keep container tightly closed. Wash thoroughly after handling.
Conditions for safe storage, including any incompatibilities	Keep out of reach of children. Keep away from heat, open flames or other sources of ignition. Do not store at temperatures above 120°F (49°C). Store in a closed container away from incompatible materials.

8. Exposure controls/Personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Kerosene (CAS 8008-20-6)	TWA	200 mg/m3	Non-aerosol.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Methyl cyclopentadienyl manganese tricarbonyl (CAS 12108-13-3)	TWA	0.2 mg/m3	
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	TWA	200 mg/m3	Non-aerosol.
Stoddard solvent (CAS 8052-41-3)	TWA	100 ppm	

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Distillates (petroleum), light hydrotreated (CAS 64742-47-8)	TWA	200 mg/m3	Vapor.
Kerosene (CAS 8008-20-6)	TWA	200 mg/m3	Vapor.
Methyl cyclopentadienyl manganese tricarbonyl (CAS 12108-13-3)	TWA	0.2 mg/m3	
Stoddard solvent (CAS 8052-41-3)	TWA	572 mg/m3 100 ppm	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Distillates (petroleum), light hydrotreated (CAS 64742-47-8)	TWA	200 mg/m3	Non-aerosol.
Kerosene (CAS 8008-20-6)	TWA	200 mg/m3	Non-aerosol.
Methyl cyclopentadienyl manganese tricarbonyl (CAS 12108-13-3)	TWA	0.2 mg/m3	
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	TWA	200 mg/m3	Non-aerosol.
Stoddard solvent (CAS 8052-41-3)	STEL	580 mg/m3	
	TWA	290 mg/m3	

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Kerosene (CAS 8008-20-6)	TWA	200 mg/m3	Non-aerosol.
Methyl cyclopentadienyl manganese tricarbonyl (CAS 12108-13-3)	TWA	0.2 mg/m3	
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	TWA	200 mg/m3	Non-aerosol.
Stoddard solvent (CAS 8052-41-3)	TWA	100 ppm	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Kerosene (CAS 8008-20-6)	TWA	200 mg/m3	Non-aerosol.
Methyl cyclopentadienyl manganese tricarbonyl (CAS 12108-13-3)	TWA	0.2 mg/m3	
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	TWA	200 mg/m3	Non-aerosol.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Stoddard solvent (CAS 8052-41-3)	TWA	100 ppm	

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Methyl cyclopentadienyl manganese tricarbonyl (CAS 12108-13-3)	TWA	0.2 mg/m ³	
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	TWA	1590 mg/m ³	
		400 ppm	
Stoddard solvent (CAS 8052-41-3)	TWA	525 mg/m ³	
		100 ppm	

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines**Canada - Alberta OELs: Skin designation**

Distillates (petroleum), light hydrotreated (CAS 64742-47-8)	Can be absorbed through the skin.
Kerosene (CAS 8008-20-6)	Can be absorbed through the skin.
Methyl cyclopentadienyl manganese tricarbonyl (CAS 12108-13-3)	Can be absorbed through the skin.
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation

Distillates (petroleum), light hydrotreated (CAS 64742-47-8)	Can be absorbed through the skin.
Kerosene (CAS 8008-20-6)	Can be absorbed through the skin.
Methyl cyclopentadienyl manganese tricarbonyl (CAS 12108-13-3)	Can be absorbed through the skin.
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

Kerosene (CAS 8008-20-6)	Can be absorbed through the skin.
Methyl cyclopentadienyl manganese tricarbonyl (CAS 12108-13-3)	Can be absorbed through the skin.
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

Kerosene (CAS 8008-20-6)	Can be absorbed through the skin.
Methyl cyclopentadienyl manganese tricarbonyl (CAS 12108-13-3)	Can be absorbed through the skin.
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

Methyl cyclopentadienyl manganese tricarbonyl (CAS 12108-13-3)	Can be absorbed through the skin.
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Canada - Saskatchewan OELs: Skin designation

Distillates (petroleum), light hydrotreated (CAS 64742-47-8)	Can be absorbed through the skin.
Kerosene (CAS 8008-20-6)	Can be absorbed through the skin.
Methyl cyclopentadienyl manganese tricarbonyl (CAS 12108-13-3)	Can be absorbed through the skin.
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Kerosene (CAS 8008-20-6)	Can be absorbed through the skin.
Methyl cyclopentadienyl manganese tricarbonyl (CAS 12108-13-3)	Can be absorbed through the skin.
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	Can be absorbed through the skin.

Appropriate engineering controls	Use only under good ventilation conditions or with respiratory protection. Consult the product label for special protection or precautions that have been identified for using this product under directed consumer use conditions. The following recommendations are given for workplace employees, emergency personnel and for other conditions and situations where there is a greater potential for large-scale or prolonged exposure.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields.
Skin protection	
Hand protection	Neoprene or Nitrile rubber. Gloves. Confirm with a reputable supplier first.
Other	As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
Thermal hazards	Not available.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Appearance	Clear
Physical state	Liquid.
Form	Liquid
Colour	Amber
Odour	Solvent
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	100 - 305 °C (212 - 581 °F)
Flash point	43.0 °C (109.4 °F) Pensky-Martens Closed Cup
Evaporation Rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapour pressure	Not available.
Vapour density	Heavier than air
Relative density	Not available.
Solubility(ies)	
Solubility (Water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Flash point class	Combustible II
Specific gravity	0.83

10. Stability and reactivity

Reactivity	May react with incompatible materials.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.

Conditions to avoid	Heat, open flames, static discharge, sparks and other ignition sources. Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizers.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of manganese.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful. Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
Skin contact	May cause irritation. May be absorbed through the skin in harmful amounts.
Eye contact	Causes irritation.
Ingestion	This product may be harmful or fatal if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics	Aspiration of material into lungs can cause chemical pneumonitis. Symptoms may include stinging, tearing, redness, swelling of the eyes, and blurred vision. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Symptoms may include stomach distress, nausea or vomiting. Symptoms may include redness, drying, defatting and cracking of the skin.

Information on toxicological effects

Acute toxicity

Components	Species	Test results
Distillates (petroleum), light hydrotreated (CAS 64742-47-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 2.8 mg/l/4h
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
Kerosene (CAS 8008-20-6)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	5000 mg/kg
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Guinea pig	20000 mg/kg
	Rabbit	2835 mg/kg
	Rat	5000 mg/kg
Methyl cyclopentadienyl manganese tricarbonyl (CAS 12108-13-3)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	140 mg/kg
<i>Inhalation</i>		
LC50	Mouse	0.1 mg/L, 4 Hours
	Rat	76 mg/l/4h
		0.2 mg/L, 1 Hours
		0.1 mg/L, 4 Hours
<i>Oral</i>		
LD50	Mouse	251.9 mg/kg
	Rat	8 mg/kg
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg

Components	Species	Test results
		3000 ml/kg
	Rat	3000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 6 mg/l/4h 590 mg/l/4h 61 mg/L, 4 Hours
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg > 25 ml/kg 7050 mg/kg
Stoddard solvent (CAS 8052-41-3)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 3000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 5500 mg/m3
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
Skin corrosion/irritation	May cause irritation.	
Exposure minutes	Not available.	
Erythema value	Not available.	
Oedema value	Not available.	
Serious eye damage/eye irritation	Causes irritation.	
Corneal opacity value	Not available.	
Iris lesion value	Not available.	
Conjunctival reddening value	Not available.	
Conjunctival oedema value	Not available.	
Recover days	Not available.	
Respiratory or skin sensitisation	Not classified.	
Respiratory sensitisation	Not classified.	
Skin sensitisation	Not classified.	
Germ cell mutagenicity	Non-hazardous by WHMIS criteria.	
Carcinogenicity	Non-hazardous by WHMIS criteria.	
ACGIH Carcinogens		
Kerosene (CAS 8008-20-6)		A3 Confirmed animal carcinogen with unknown relevance to humans.
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)		A3 Confirmed animal carcinogen with unknown relevance to humans.
Canada - Manitoba OELs: carcinogenicity		
KEROSENE (NON-AEROSOL), AS TOTAL HYDROCARBON VAPOR (CAS 64742-94-5)		Confirmed animal carcinogen with unknown relevance to humans.
KEROSENE (NON-AEROSOL), AS TOTAL HYDROCARBON VAPOR (CAS 8008-20-6)		Confirmed animal carcinogen with unknown relevance to humans.
IARC Monographs. Overall Evaluation of Carcinogenicity		
Stoddard solvent (CAS 8052-41-3)		Volume 47 - 3 Not classifiable as to carcinogenicity to humans.
Reproductive toxicity	Non-hazardous by WHMIS criteria.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not established.	

Chronic effects	May cause chronic toxic effects. May cause CNS impairment
Further information	Not available.

12. Ecological information

Ecotoxicity Components of this product have been identified as having potential environmental concerns.

Ecotoxicological data

Components	Species	Test results
Distillates (petroleum), light hydrotreated (CAS 64742-47-8)		
Aquatic		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)
		2.9 mg/L, 96 hours
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)		
Algae	IC50	Algae
		2.5 mg/L, 72 Hours
Crustacea	EC50	Daphnia
		0.95 mg/L, 48 Hours
Aquatic		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)
		8.8 mg/L, 96 hours
		8.8 mg/L, 96 hours

Persistence and degradability	Not available.
Bioaccumulative potential	Not available.
Mobility in soil	Not available.
Mobility in general	Not available.
Other adverse effects	Not available.

13. Disposal considerations

Disposal instructions	Review federal, provincial, and local government requirements prior to disposal.
Hazardous waste code	Not regulated.
Waste from residues / unused products	Not available.
Contaminated packaging	Not available.

14. Transport information

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number	UN2929
Proper shipping name	Toxic liquid, flammable, organic, n.o.s.
Technical name	METHYL CYCLOPENTADIENYL MANGANESE TRICARBONYL
Technical name	Kerosene
Hazard class	6.1(PGI, II)
Subsidiary hazard class	3
Packing group	II
Special provisions	16
Packaging exceptions	Limited quantity 0.1L

TDG



15. Regulatory information

Canadian federal regulations This product is not subject to the Hazardous Products Act (HPA) Part II (Hazardous Products) as per paragraph 12(j); Schedule 1 (Non-Application of Part II).
This restriction states that Part II does not apply in respect of the sale or importation of anything listed in Schedule 1 which includes any pest control product as defined in subsection 2(1) of the Pest Control Products Act, any explosive as defined in section 2 of the Explosives Act, any cosmetic, device, drug or food, as defined in section 2 of the Food and Drugs Act, any consumer product as defined in section 2 of the Canada Consumer Product Safety Act and any wood or product made of wood.

Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number

Distillates (petroleum), light hydrotreated (CAS 64742-47-8)	1 TONNES
Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)	1 TONNES
Stoddard solvent (CAS 8052-41-3)	1 TONNES

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

WHMIS status Controlled
WHMIS classification Exempt - Consumer product

Inventory Status

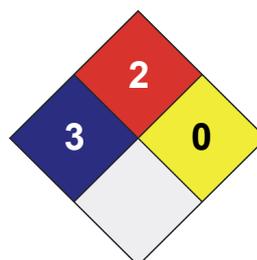
Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	*	3
FLAMMABILITY		2
PHYSICAL HAZARD		0
PERSONAL PROTECTION		X



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Other information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

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