

Material Safety Data Sheet: ROAD RUNNER ALL SEASONS

Supersedes Date 07/09/2012

Issuing Date 09/04/2013

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name ROAD RUNNER ALL SEASONS
 Recommended use Fuel additive
 Information on Manufacturer
 MANTEK, DIVISION OF NCH CORP.
 BOX 152170
 IRVING, TEXAS 75015

Product Code 951J
 Chemical nature Petroleum distillates
 Emergency Telephone Number
 CHEMTREC® 800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER

Combustible liquid and vapor
 May be harmful if inhaled
 Causes skin irritation
 Causes eye irritation
 May cause allergic skin reaction
 May be harmful if swallowed

Color Orange - Brown
 Potential Health Effects
 Principle Route of Exposure
 Primary Routes of Entry
 Acute Effects

Physical State Liquid

Odor Petroleum distillates

Inhalation, Skin contact, Eye contact.
 Inhalation, Skin Absorption.

Eyes
 Skin

Causes eye irritation.
 Causes skin irritation. May cause allergic skin reaction. May be absorbed through the skin in harmful amounts. Blood disorder may occur after prolonged skin contact.

Inhalation

May cause irritation of respiratory tract. Inhalation may cause central nervous system effects. May cause central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Blood disorder may occur after prolonged inhalation. Methemoglobinemia. Lowered blood pressure.

Ingestion

Irritating to mucous membranes. Causes headache, drowsiness or other effects to the central nervous system. Blood disorder may occur after ingestion. Methemoglobinemia. Lowered blood pressure. Bloody urine. Aspiration hazard if swallowed - can enter lungs and cause damage. May be fatal if swallowed and enters airways.

Chronic Toxicity

Repeated and prolonged exposure to solvents may cause brain and nervous system damage. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged skin contact may defat the skin and produce dermatitis. May cause sensitization by skin contact. Contains a known or suspected carcinogen. Suspect reproductive hazard - contains material which may injure unborn child.

Target Organ Effects

Blood, Central nervous system, Peripheral Nervous System (PNS), Kidney, Liver, Respiratory system, Skin, Ears, Cardiovascular system, Immune system.
 Kidney disorders, Liver disorders, Blood disorders, Neurological disorders, Skin disorders, Respiratory disorders, Heart disease.

Aggravated Medical Conditions

Potential Environmental Effects

See Section 12 for additional Ecological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
2-Ethylhexyl nitrate	27247-96-7
Naphtha (petroleum), heavy aromatic	64742-94-5
Petroleum naphtha, light aromatic	64742-95-6
Pseudocumene	95-63-6
1,3,5-Trimethylbenzene	108-67-8
Propyl benzene	103-65-1
Naphthalene	91-20-3
Cumene	98-82-8
Xylenes (o-, m-, p- isomers)	1330-20-7
2-Ethyl hexanol	104-76-7
Ethyl benzene	100-41-4

4. FIRST AID MEASURES

General advice
Eye Contact

Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing.
Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if irritation develops and persists.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention if irritation develops and persists. Wash contaminated clothing before re-use.

Inhalation
Ingestion

If inhaled, remove to fresh air. Get medical attention if symptoms occur.
Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.

Notes to physician

Since reversion of methemoglobin to hemoglobin occurs spontaneously after termination of exposure, moderate degrees of cyanosis need to be treated only by supportive measures. Aspiration hazard if swallowed - can enter lungs and cause damage. May be fatal if swallowed and enters airways. May cause sensitization of susceptible persons.

5. FIRE-FIGHTING MEASURES

Flash Point 147 °F / 64 °C

Method

Set a closed cup

Autoignition Temperature No information available.

Flammability Limits in Air % Mixture.

Upper 7.0

Lower 0.7

Suitable Extinguishing Media

Water spray. Foam. Dry chemical. Carbon dioxide (CO2).

Specific hazards arising from the chemical

Combustible Liquid. Solvent vapors are heavier than air and may spread along floors. Vapors may ignite and explode. Material can create slippery conditions.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA Health 2

Flammability 2

Instability 0

HMIS Health 2

Flammability 2

Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges. Ensure adequate ventilation. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.

Environmental Precautions
Methods for Containment

Do not flush into surface water or sanitary sewer system.

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13)

Methods for Cleaning Up

Use clean non-sparking tools to collect absorbed material. Pick up and transfer to properly labeled containers.

Neutralizing Agent

Not applicable.

7. HANDLING AND STORAGE

Handling

Keep away from open flames, hot surfaces and sources of ignition. Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing.

Storage

Keep away from heat and sources of ignition. Store in original container. Keep container tightly closed in a dry and well-ventilated place.

Storage Temperature

Minimum 0 °F / -18 °C

Maximum 120 °F / 49 °C

Storage Conditions

Indoor X

Outdoor X

Heated

Refrigerated

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
2-Ethylhexyl nitrate	1 ppm (vendor data)	No data available	No data available
Naphtha (petroleum), heavy aromatic	No data available	No data available	No data available
Petroleum naphtha, light aromatic	No data available	No data available	No data available
Pseudocumene	No data available	No data available	TWA: 25 ppm
1,3,5-Trimethylbenzene	No data available	No data available	TWA: 125 mg/m ³
Propyl benzene	No data available	No data available	TWA: 25 ppm
Naphthalene	No data available	No data available	TWA: 125 mg/m ³
	TWA: 10 ppm	TWA: 10 ppm	IDLH: 250 ppm
	Skin	TWA: 50 mg/m ³	STEL 15 ppm
	STEL: 15 ppm		STEL 75 mg/m ³
			TWA: 10 ppm

Cumene	TWA: 50 ppm	TWA: 50 ppm TWA: 245 mg/m ³ Skin	TWA: 50 mg/m ³ IDLH: 900 ppm TWA: 50 ppm TWA: 245 mg/m ³
Xylenes (o-, m-, p- isomers)	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm TWA: 435 mg/m ³	No data available
2-Ethyl hexanol	No data available	No data available	No data available
Ethyl benzene	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³	IDLH: 800 ppm STEL 125 ppm STEL 545 mg/m ³ TWA: 100 ppm TWA: 435 mg/m ³

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Personal Protective Equipment

Eye/Face Protection

Safety glasses with side-shields.

Skin Protection

Wear suitable protective clothing, Impervious gloves.

Respiratory Protection

In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General Hygiene Considerations

Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Viscosity	Non viscous
Color	Orange - Brown	Odor	Petroleum distillates
Appearance	Transparent	pH	Not applicable
Specific Gravity	0.92	Evaporation Rate	0.17 (Butyl acetate=1)
Percent Volatile (Volume)	99.7	VOC Content (%)	99.7
VOC Content (g/L)	917	Vapor Pressure	0.78 mmHg @ 70°F
Vapor Density	9.6 (Air = 1.0)	Solubility	Negligible
Boiling Point/Range	> 320 °F / 160 °C		

10. STABILITY AND REACTIVITY

Chemical Stability	Stable. Hazardous polymerization does not occur.
Conditions to Avoid	Keep away from open flames, hot surfaces, and sources of ignition
Incompatible Products	Strong oxidizing agents, Reducing agents, Acids.
Hazardous Decomposition Products	Carbon oxides, Nitrogen oxides (NOx), Aldehydes.
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information No information available.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
2-Ethylhexyl nitrate	> 2000 mg/kg (Rat)	> 4820 mg/kg (Rabbit)	> 14 mg/L (Rat) 4 h > 4.6 mg/L (Rat) 1 h	no data available	no data available
Naphtha (petroleum), heavy aromatic	> 5000 mg/kg (Rat)	> 2 mL/kg (Rabbit)	> 590 mg/m ³ (Rat) 4 h	no data available	no data available
Petroleum naphtha, light aromatic	no data available	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h = 3400 ppm (Rat) 4 h	no data available	no data available
Pseudocumene	= 3400 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 18 g/m ³ (Rat) 4 h	no data available	no data available
1,3,5-Trimethylbenzene	no data available	no data available	= 24 g/m ³ (Rat) 4 h	no data available	no data available
Propyl benzene	no data available	no data available	= 65000 ppm (Rat) 2 h	no data available	no data available
Naphthalene	no data available	> 20 g/kg (Rabbit)	> 340 mg/m ³ (Rat) 1 h	no data available	no data available
Cumene	= 1400 mg/kg (Rat)	= 12300 µL/kg (Rabbit)	no data available	no data available	no data available
Xylenes (o-, m-, p- isomers)	= 4300 mg/kg (Rat)	> 1700 mg/kg (Rabbit)	= 47635 mg/L (Rat) 4 h	no data available	no data available
2-Ethyl hexanol	1516 - 2774 mg/kg (Rat)	no data available	no data available	no data available	no data available
Ethyl benzene	= 3500 mg/kg (Rat)	= 15354 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
2-Ethylhexyl nitrate	no data available	no data available	no data available	no data available	CNS
Naphtha (petroleum), heavy aromatic	no data available	no data available	no data available	no data available	CNS

Petroleum naphtha, light aromatic	no data available	no data available	no data available	no data available	CNS
Pseudocumene	no data available	no data available	no data available	no data available	eyes, CNS, respiratory system, skin, blood, ears, heart
1,3,5-Trimethylbenzene	no data available	no data available	no data available	no data available	eyes, CNS, respiratory system, skin, blood, ears, heart
Propyl benzene	no data available	no data available	no data available	no data available	CNS
Naphthalene	no data available	Skin sensitization	no data available	no data available	eyes, blood, liver, kidneys, skin, CNS, immune system
Cumene	no data available	no data available	no data available	no data available	eyes, CNS, respiratory system, skin
Xylenes (o-, m-, p- isomers)	no data available	no data available	yes	no data available	heart, lung, CNS, PNS, respiratory system, ears, liver, kidney
2-Ethyl hexanol	no data available	no data available	no data available	no data available	CNS, lungs, heart, kidney, liver
Ethyl benzene	no data available	no data available	yes	no data available	eyes, CNS, respiratory system, skin

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH	IARC	NTP	OSHA	Other
2-Ethylhexyl nitrate	not applicable	Group 2A	not applicable	X	not applicable
Naphtha (petroleum), heavy aromatic	not applicable	not applicable	not applicable	not applicable	not applicable
Petroleum naphtha, light aromatic	not applicable	not applicable	not applicable	not applicable	not applicable
Pseudocumene	not applicable	not applicable	not applicable	not applicable	not applicable
1,3,5-Trimethylbenzene	not applicable	not applicable	not applicable	not applicable	not applicable
Propyl benzene	not applicable	not applicable	not applicable	not applicable	not applicable
Naphthalene	not applicable	not applicable	not applicable	not applicable	not applicable
Cumene	not applicable	Group 2B	not applicable	X	yes - CA Prop 65 List
Xylenes (o-, m-, p- isomers)	not applicable	not applicable	not applicable	not applicable	not applicable
2-Ethyl hexanol	not applicable	not applicable	not applicable	not applicable	not applicable
Ethyl benzene	A3	Group 2B	not applicable	X	X

12. ECOLOGICAL INFORMATION

Product Information

No information available.

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
2-Ethylhexyl nitrate	no data available	LC50 = 116 mg/L Salmo gairdneri 48 h	EC50 = 100 mg/L 15 min	no data available	4.14
Naphtha (petroleum), heavy aromatic	EC50 = 2.5 mg/L Skeletonema costatum 72 h	LC50 = 19 mg/L Pimephales promelas 96 h LC50 = 2.34 mg/L Oncorhynchus mykiss 96 h LC50 = 1740 mg/L Lepomis macrochirus 96 h LC50 = 45 mg/L Pimephales promelas 96 h LC50 = 41 mg/L Pimephales promelas 96 h	no data available	EC50= 0.95 mg/L 48 h	2.9 - 6.1
Petroleum naphtha, light aromatic	no data available	LC50 = 9.22 mg/L Oncorhynchus mykiss 96 h	no data available	EC50= 6.14 mg/L 48 h	N/A
Pseudocumene	no data available	LC50 7.19 - 8.28 mg/L Pimephales promelas 96 h	no data available	EC50= 6.14 mg/L 48 h	3.63
1,3,5-Trimethylbenzene	no data available	LC50 = 3.48 mg/L Pimephales promelas 96 h	no data available	EC50= 50 mg/L 24 h	N/A
Propyl benzene	no data available	no data available	no data available	no data available	3.68
Naphthalene	EC50 = 0.4 mg/L Skeletonema costatum 72 h	LC50 5.74 - 6.44 mg/L Pimephales promelas 96 h LC50 = 1.6 mg/L Oncorhynchus mykiss 96 h LC50 0.91 - 2.82 mg/L Oncorhynchus mykiss 96 h LC50 = 1.99 mg/L Pimephales promelas 96 h LC50 = 31.0265 mg/L Lepomis macrochirus 96 h	EC50 = 0.93 mg/L 30 min EC50 > 20 mg/L 18 h	LC50= 2.16 mg/L 48 h EC50= 1.96 mg/L 48 h EC50 1.09 - 3.4 mg/L 48 h	3.3
Cumene	EC50 = 2.6 mg/L	LC50 6.04 - 6.61 mg/L Pimephales	EC50 = 0.89 mg/L 5 min	EC50= 0.6 mg/L 48 h EC50	3.55

	Pseudokirchneriella subcapitata 72 h	promelas 96 h LC50 = 4.8 mg/L Oncorhynchus mykiss 96 h LC50 = 2.7 mg/L Oncorhynchus mykiss 96 h LC50 = 5.1 mg/L Poecilia reticulata 96 h	EC50 = 1.10 mg/L 15 min EC50 = 1.48 mg/L 30 min EC50 = 172 mg/L 24 h	7.9 - 14.1 mg/L 48 h	
Xylenes (o-, m-, p- isomers)	no data available	LC50 = 13.4 mg/L Pimephales promelas 96 h LC50 2.661 - 4.093 mg/L Oncorhynchus mykiss 96 h LC50 13.5 - 17.3 mg/L Oncorhynchus mykiss 96 h LC50 13.1 - 16.5 mg/L Lepomis macrochirus 96 h LC50 = 19 mg/L Lepomis macrochirus 96 h LC50 7.711 - 9.591 mg/L Lepomis macrochirus 96 h LC50 23.53 - 29.97 mg/L Pimephales promelas 96 h LC50 = 780 mg/L Cyprinus carpio 96 h LC50 > 780 mg/L Cyprinus carpio 96 h LC50 30.26 - 40.75 mg/L Poecilia reticulata 96 h	EC50 = 0.0084 mg/L 24 h	EC50= 3.82 mg/L 48 h LC50= 0.6 mg/L 48 h	2.77 - 3.15
2-Ethyl hexanol	EC50 = 11.5 mg/L Desmodesmus subspicatus 72 h	LC50 32 - 37 mg/L Oncorhynchus mykiss 96 h LC50 > 7.5 mg/L Oncorhynchus mykiss 96 h LC50 27 - 29.5 mg/L Pimephales promelas 96 h LC50 = 29.7 mg/L Pimephales promelas 96 h LC50 10.0 - 33.0 mg/L Lepomis macrochirus 96 h	* no data available	EC50= 39 mg/L 48 h	3.1
Ethyl benzene	EC50 = 4.6 mg/L Pseudokirchneriella subcapitata 72 h EC50 > 438 mg/L Pseudokirchneriella subcapitata 96 h EC50 2.6 - 11.3 mg/L Pseudokirchneriella subcapitata 72 h EC50 1.7 - 7.6 mg/L Pseudokirchneriella subcapitata 96 h	LC50 = 9.6 mg/L Poecilia reticulata 96 h LC50 11.0 - 18.0 mg/L Oncorhynchus mykiss 96 h LC50 = 4.2 mg/L Oncorhynchus mykiss 96 h LC50 7.55 - 11 mg/L Pimephales promelas 96 h LC50 = 32 mg/L Lepomis macrochirus 96 h LC50 9.1 - 15.6 mg/L Pimephales promelas 96 h	EC50 = 9.68 mg/L 30 min EC50 = 96 mg/L 24 h	EC50 1.8 - 2.4 mg/L 48 h	3.118

Persistence and Degradability No information available.
Bioaccumulation No information available.
Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of in accordance with local regulations.
Container Disposal Empty containers should be taken for local recycling, recovery, or waste disposal.

14. TRANSPORT INFORMATION

DOT
Proper Shipping Name Petroleum distillates, n.o.s.
Hazard Class 3
UN-No UN1268
Packing Group III
Marine Pollutant This product contains a chemical which is listed as a marine pollutant according to DOT.
Description UN1268, Petroleum Distillates, N.O.S., 3, PGIII (>119 gallon - < 119 Not Regulated)

TDG
Proper shipping name Petroleum distillates, n.o.s.
Hazard Class 3
UN-No UN1268

Packing Group III
Marine Pollutant Description This product contains a chemical which is listed as a marine pollutant according to TDG. UN1268, Petroleum distillates, n.o.s.,3,III, Marine Pollutant(>119 gallons- <119 gallons not regulated)

ICAO Not regulated
UN-No UN3082
Hazard Class 9
Packing Group III
Shipping Description UN3082, Environmentally hazardous substance, n.o.s.,(2-ethylhexyl nitrate),9,III, Marine Pollutant

IATA Not regulated
UN-No UN3082
Hazard Class 9
Packing Group III
Shipping Description UN3082, Environmentally hazardous substance, n.o.s.,(2-ethylhexyl nitrate),9,III, Marine Pollutant

IMDG/IMO
Proper Shipping Name Environmentally hazardous substance, n.o.s.,(2,ethylhexyl nitrate)
Hazard Class 9
UN-No UN3082
Packing Group III
EmS No. F-E, S-E
Marine Pollutant Shipping Description This product contains a chemical which is listed as a marine pollutant according to IMDG/IMO UN3082, Environmentally hazardous substance, n.o.s.,(2-ethylhexyl nitrate),9,III, Marine Pollutant

15. REGULATORY INFORMATION

Inventories

TSCA Complies
DSL Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Pseudocumene	95-63-6	10-30	1.0
Naphthalene	91-20-3	1-5	0.1
Cumene	98-82-8	1-5	1.0
Xylenes (o-, m-, p- isomers)	1330-20-7	1-5	1.0
Ethyl benzene	100-41-4	1-5	0.1

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	Yes	Yes	No	No

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
2-Ethylhexyl nitrate	Not applicable	Not applicable
Naphtha (petroleum), heavy aromatic	Not applicable	Not applicable
Petroleum naphtha, light aromatic	Not applicable	Not applicable
Pseudocumene	Not applicable	Not applicable
1,3,5-Trimethylbenzene	Not applicable	Not applicable
Propyl benzene	Not applicable	Not applicable
Naphthalene	100 lb	Not applicable
Cumene	5000 lb	Not applicable
Xylenes (o-, m-, p- isomers)	100 lb	Not applicable
2-Ethyl hexanol	Not applicable	Not applicable
Ethyl benzene	1000 lb	Not applicable

Canada

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

WHMIS Hazard Class

B3 Combustible liquid D2A Very toxic materials D2B Toxic materials



16. OTHER INFORMATION

Prepared By	Angela Hutson
Supersedes Date	07/09/2012
Issuing Date	09/04/2013
Reason for Revision	No information available.
Glossary	No information available.
List of References.	No information available.

MANTEK, DIVISION OF NCH CORP. assumes no responsibility for personal injury or property damage caused by the use, storage, or disposal of the product in a manner not recommended on the product label. Users assume all risks associated with such unrecommended use, storage or disposal of the product. The information provided on this document is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

