

1. Product and Company Identification

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Product Name	Solvent Naphtha M
Part Number	RXSOL-19-1977-208
Product Use	Solvent
Synonyms	Solvent 110

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
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2. Composition / Information on ingredients

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Chemical Name	CAS number	EC number	Weight %	Registration number (REACH)
Hydrocarbons, aromatics, naphthalene	C10, 64742-94-5 >1%	919-284-0	100 %	01-2119463588-24-0003

Hazardous ingredients

Name of Substance	Identifier	Wt%	Classification acc. to GHS
Naphthalene	CAS No 91-20-3	1 -10	Acute Tox. 4 / H302 Carc.2 / H351 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410 Acute Tox. 4 / H302 Carc.2 / H351 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410

* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume. Concentration values may vary.

3. Hazards Identification

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Signal Word	Danger
Hazard class	Category
carcinogenicity	Cat. 2
Specific target organ toxicity - single exposure (narcotic effects, drowsiness)	Cat. 3
Aspiration hazard	Cat. 2
Hazardous to the aquatic environment - chronic hazard	Cat. 1
Hazard statements	The most important adverse physicochemical, human health and environmental effects May be fatal if swallowed and enters airways H304 May be fatal if swallowed and enters airways. H336 May be fatal if swallowed and enters airways. H351 May cause drowsiness or dizziness. H411 Suspected of causing cancer. Toxic to aquatic life with long lasting effects
Precautionary statements - prevention	H226 Flammable liquid and vapor. P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P210: Keep away from heat/sparks/open flames/hot surfaces. -- No smoking. P233: Keep container tightly closed. P240: Ground / bond container and receiving equipment. P241: Use explosion-proof electrical, ventilating, and lighting equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P261: Avoid breathing mist / vapours. P271: Use only outdoors or in a well-ventilated area. P273: Avoid release to the environment. P280: Wear protective gloves/protective clothing/eye protection/face protection. P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P308 + P313: IF exposed or concerned: Get medical advice/ attention. P312: Call a POISON CENTER or doctor/physician if you feel unwell. P331: Do NOT induce vomiting. P332 + P313: If skin irritation occurs: Get medical advice/ attention. P370 + P378: In case of fire: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish. P403 + P235: Store in a well-ventilated place. Keep cool. P405: Store locked up. P501: Dispose of contents and container P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Precautionary statements - response	P312 Call a POISON CENTER or doctor/physician if you feel unwell. P331 Do NOT induce vomiting.
Precautionary statements - storage	P391 Collect spillage. P403+P233 Store in a well-ventilated place. Keep container tightly closed.
Flammable liquid	Category 3
Carcinogen:	Category 2. Specific target organ toxicant (central nervous system); Category 3. Specific target organ toxicant (respiratory irritant); Category 3. Aspiration toxicant: Category 3.
GHS Hazard Classifications:	Flammable liquid: Category 3. Carcinogen: Category 2. Specific target organ toxicant (central nervous system): Category 3. Specific target organ

Precautionary statements - disposal

Other hazard information:

Additional labelling requirements

toxicant (respiratory irritant): Category 3. Aspiration toxicant: Category 1

P501 Dispose of contents/container to industrial combustion plant

Supplemental hazard information. EUH066 Repeated exposure may cause skin dryness or cracking.

EUH066 Repeated exposure may cause skin dryness or cracking

4. First Aid Measures

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General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Indication of any immediate medical attention and special treatment needed

Wash with plenty of soap and water.

Skin Contact

Eye Contact

Irrigate copiously with clean, fresh water, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. In all cases of doubt, or when symptoms persist, seek medical advice.

Inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air

Ingestion

Do NOT induce vomiting. Rinse mouth with water (only if the person is conscious)

Most important symptoms/effects both acute and delayed

Choking and suffocation risks. Narcotic effects. Deficits in perception and coordination, reaction time, or sleepiness

Notes to Physician

Treat symptomatically

HMIS Hazard ID

Health: 1* Flammability: 2 Reactivity: 0

5. Fire-fighting Measures

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General information

Extinguishing materials should be selected according to the surrounding area. The product itself is not combustible.

Appropriate Extinguishing Media

Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames

Inappropriate Extinguishing Media:

Straight Streams of Water

Flammability of the Product

Flammable.

Suitable extinguishing media

Carbon dioxide (CO2), BC-powder, foam, alcohol resistant foam, water mist

Unsuitable extinguishing media

water jet

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO2)

Advice for firefighters

Wear breathing apparatus if exposed to vapours/dust/spray/gases. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance. Keep containers cool with water spray.

Special hazards arising from the substance or mixture

May produce toxic fumes of carbon monoxide if burning.

FIRE FIGHTING

Fire Fighting Instructions:

Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel

Unusual Fire Hazards

Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger.

Hazardous Combustion Product

FLAMMABILITY PROPERTIES

Flash Point [Method]:

Flammable Limits (Approximate volume % in air):

Autoignition Temperature:

Extinguishing media which must not be used for safety reasons:

Special protective equipment for fire-fighters:

Additional information:

Hazardous material. Firefighters should consider protective equipment indicated in Section 8

Smoke, Fume, Oxides of carbon, Incomplete combustion products

46°C (115°F) [ASTM D-56]

LEL: 0.9 UEL: 6.2

485°C (905°F)

High power water jet.

In case of fire. Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).

Contaminated fire-fighting water must be collected separately.

6. Accidental Release Measures

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Personal precautions, protective equipment and emergency procedures
For non-emergency personnel

Remove persons to safety. Avoid inhaling sprayed product. Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Take off immediately all contaminated clothing and wash it before reuse

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases

Methods and material for containment and cleaning up
Advices on how to contain a spill

Covering of drains.

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage (sawdust, kieselgur (diatomite), sand, universal binder).

Appropriate containment techniques

Use of adsorbent materials. - covering of drains

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area

Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

Notification Procedure

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

Protective Measure

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

Spillage

Absorb with an inert material and put the spilled material in an appropriate waste disposal. Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Personal Protection

Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.

Environmental Precaution

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

7. Handling and Storage

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Measures to prevent fire as well as aerosol and dust generation

Use only in well-ventilated areas. Use local and general ventilation.

Incompatible substances or mixtures

Conditions for safe storage, including any incompatibilities

Managing of associated risks

Advice on general occupational hygiene

Observe hints for combined storage.

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feed.

Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used. Suitable materials and coatings for container/equipment: Carbon Steel, Stainless Steel, Polyester, Polytetrafluoroethylene (PTFE), Polyvinyl Alcohol (PVA). Unsuitable Materials and Coatings for container/equipment: Butyl Rubber, Natural Rubber, Ethylene-propylene-diene monomer (EPDM), Polystyrene, Polyethylene, Polyacrylonitrile

Handling

Avoid breathing mists or vapors. Avoid all personal contact. Potentially toxic/irritating fumes/vapors may be evolved from heated or agitated material. Use only with adequate ventilation. Do not enter storage areas or confined spaces unless adequately ventilated. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended

Storage

The container choice, for example storage vessel, may effect static accumulation and dissipation. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Storage containers should be grounded and bonded. Fixed storage containers, transfer containers and associated equipment should be grounded and bonded to prevent accumulation of static charge

Storage Temperature

[Ambient]

Storage Pressure

[Ambient]

Suitable Containers/Packing:

Railcars; Tank Trucks; Barges; Drums; Tankers

Suitable Materials and Coatings (Chemical Compatibility)

Carbon Steel; Stainless Steel; Copper Bronze; Inorganic; Inorganic Zinc Coatings; Epoxy Phenolic; Polyamide Epoxy; Amine Epoxy; Viton

Unsuitable Materials and Coatings

Vinyl Coatings; Butyl Rubber; Natural Rubber; Ethylene propylene-diene monomer (EPDM); Polyethylene; Polystyrene; PVC; Polyacrylonitrile; Polypropylene

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Specific end use(s)

See attached exposure scenarios

8. Exposure controls and personal protection

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Exposure Limit Values

Exposure limits/standards (Note Exposure limits are not additive)

Country	Chemical Name	CAS.No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Source
DE	Hydrocarbons, C10,Aromatic, >1% Naphthalene	64742-94-5	AGW		50		50	TRGS 900
DE	Naphthalene	91-20-3	AGW	0.4	2	1.6	8	TRGS 900
EU	Naphthalene	91-20-3	IOELV	10	50			91/322/EEC
IE	Naphthalene	91-20-3	OELV	10	50	15	75	S.I. No. 619 of 2001

Relevant DNELs/DMELs/PNECs and other threshold levels

Human health values

Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time	
DNEL	12.5 mg/kg	Human, dermal	worker (industry)	chronic - systemic effects	
DNEL	151 mg/m ³	Human, inhalatory	worker (industry)	chronic - systemic effects	
DNEL	7.5 mg/kg	Human, oral	consumer households)	(private chronic - systemic effects	
DNEL	7.5 mg/kg	Human, inhalatory	consumer households)	(private chronic - systemic effects	
DNEL	32 mg/m ³	Human, dermal	consumer households)	(private chronic - systemic effects	
Name of substance	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Naphthalene	DNEL	25 mg/m ³	Human, inhalatory	worker (industry	chronic - local effects
Naphthalene	DNEL	3.57 mg/kg	Human, inhalatory	worker (industry	chronic - systemic effcte
Naphthalene	DNEL	25 mg/m ³	Human, inhalatory	worker (industry	chronic - systemic effcte
Name of substance	Endpoint	Threshold level	Environmental compartment	Organism	Exposure time
Naphthalene	PNEC	2.9 mg/l	sewage treatment plant (STP)	microorganisms	short-term (single instanc

Exposure controls

Appropriate engineering controls

Technical measures and the appliance of appropriate working methods take priority over the use of personal protective equipment. Safety and necessary control measures vary according to exposure conditions. Appropriate measures are: Open windows, door, to allow sufficient ventilation. If this is not possible employ a fan to increase air exchange .

Individual protection measures (personal protective equipment)

Eye/face protection

Use safety goggle with side protection.

Note		Limits/Standards shown for guidance only. Follow applicable regulations.
Engineering	Control	The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider: Adequate ventilation should be provided so that exposure limits are not exceeded. Use explosion-proof ventilation equipment.
Personal Protection		Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal uses
Respiratory Protection		For activities in enclosed areas at elevated temperatures of the substance, local extraction or explosion protected ventilation equipment is recommended. In case this is not sufficient for the intended use, then apply a suitable respiratory protection according to EN 1
Hand Protection:		Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Short-term contact with the skin: Disposable gloves Long-term contact with the skin: Gloves with long cuffs Check leak-tightness/impermeability prior to use
Eye\face Protection:		Use safety goggle with side protection.
Hygiene Measures		Handle in accordance with good industrial hygiene and safety practice.
Exposure Limits		TWA: 100 (ppm) [Canada] TWA: 435 (mg/m3) [Canada] TWA: 434 STEL: 651 (mg/m3) from ACGIH (TLV) [United States] TWA: 100 STEL: 150 (ppm) from ACGIH (TLV) [United States] Consult local authorities for acceptable exposure limits.
Specific Hygiene Measures:		Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping
Environmental Protection		Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.



Gloves Suit

Physical State	Liquid
Form	Clear
Colour	Colourless
Odour	pungent
Odor Threshold	N/D
Relative Density (at 15 °C)	0.874
Boiling Point	160-230 °C (ASTM D 86)
Flash Point	>62 °C (ASTM D 93)
Density (at 15 °C):	0.87-1 g /cm ³ at 15 °C
Evaporation Rate	0.7
pH:	Not determine
Flammability (Solid, Gas):	N/A
Explosive limits	Lower explosion limit (LEL) - 0.6 vol%
	Upper explosion limit (UEL) - 7 vol%
Vapour pressure	0.269 kPa (2.02 mm Hg) at 20 °C 0.811 kPa (6.1 mm Hg) at 38°C
Log Pow (n-Octanol/Water Partition Coefficient):	N/D
Vapour Density	3.7
Secific Gravity	0.878
Decomposition Temperature	N/D
Solubility in Water:	Negligible
Autoignition Temperature	485°C (905°F)
Solubility in Water	Not Determine
Kintic viscosit	0.8-2 mm ² /s at 20 °C
Vapor Pressure:	0.06 kPa at 20 °C
Molecular Weight	121
Oxidizing Properties:	None
Freezing Point:	14°C (7°F)
Melting Point:	N/D
Hygroscopic:	No

10. Stability and reactivity

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Recativity	This material is not reactive under normal ambient conditions
Chemical Stability	The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure (see below "Conditions to avoid").
Possibility of hazardous reactions	No known hazardous reactions.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Hints to prevent fire or explosion	Use explosion-proof electrical/ventilating/lighting/equipment. Take precautionary measures against static discharge.
Incompatible materials	oxidisers
Hazardous Decomposition Products	No known hazardous decomposition products
Hazardous Polymerization	Hazardous polymerization does not occur. Hazardous Reactions None under normal processing

11. Toxicological information

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Classification

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

Exposure route	Endpoint	Value	Species
oral	LD50	6,318 mg/kg	rat
dermal	LD50	>2,000 mg/kg	rabbit
inhalation: vapour	LD50	>4,688 mg/l /4h	rat
Skin corrosion/irritation		Shall not be classified as corrosive/irritant to skin	
Serious eye damage/eye irritation		Shall not be classified as seriously damaging to the eye or eye irritant	
Respiratory or skin sensitisation		Shall not be classified as a respiratory or skin sensitiser	
Summary of evaluation of the CMR properties		Suspected of causing cancer. Shall not be classified as germ cell mutagenic. Shall not be classified as a reproductive toxicant.	
Specific target organ toxicity (STOT)		Specific target organ toxicity - single exposure	
		May cause drowsiness or dizziness.	
Specific target organ toxicity - repeated exposure		Shall not be classified as a specific target organ toxicant (repeated exposure)	
Aspiration hazard		May be fatal if swallowed and enters airways.	
		1. Inhalation	
		Hazard Class Acute Toxicity: (Rat) Minimally Toxic. Based on test data 4 hour(s) LC50 > 6193 for the material. Test(s) equivalent mg/m3 (Max attainable vapor or similar to OECD Guideline 403 conc.)	
		Irritation: No end point data for material May be irritating to the respiratory tract. The effects are reversible. Based on assessment of the components.	
		2. Ingestion	
		Acute Toxicity (Rat): LD50 3492 mg/kg Minimally Toxic. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 401	
		Skin Corrosion/Irritation: Data available Mildly irritating to skin with prolonged exposure. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 404	
		4. Eye	
		Serious Eye Damage/Irritation: Data available May cause mild, short-lasting discomfort to eyes. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 405	
		Repeated Exposure: Data available Not expected to cause organ damage from prolonged or repeated exposure. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 408 452	