



Royal Adhesives Industries

NEOPRENE THINNERS-SC11

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : NEOPRENE THINNERS
Chemical name : Toluene blend
Synonyms : Methyl benzene blend
Product use : Petroleum solvent
UN number : 1993
Supplier : Royal Adhesives Industries
11 Westmead Road , Westmead , 3608 , South Africa.
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No.	Weight%	Symbol	Risk Phrases
Toluene	108-88-3	> 40-60	F, Xn	R11, R20
Benzene	71-43-2	< 0.05	F+, T	R12, R45, R48/23/24/25
Aliphatic petroleum solvent	64742-89-8	> 30-50	F,X1	R11,R20/22,R38

R-Phrase Numbers

R12, R45, R48/23/24/25
See Section 15 for European Label Information.
See Section 8 for Exposure Limits (if applicable).

3. HAZARDS IDENTIFICATION

Emergency response data : Colourless Liquid. Highly flammable. Vapour accumulation could flash and/or explode if in contact with any ignition source. DOT ERG No. :128

Potential health effects

Inhalation : Irritation to the respiratory tract. At levels above 200 ppm , headache ,dizziness , nausea, loss of coordination and/or consciousness. Central nervous system depression may result at levels approaching 10,000 ppm.

Skin : Irritant.

Eye : Irritant.

Ingestion : Low viscosity material if swallowed may enter the lungs and cause lung damage.

Potential environmental effects : Toxic to fish, aquatic organisms and wildlife. Do not discharge into lakes, streams, ponds and ground water supply.

See Section 11 for further health effects/toxicological data.

4. FIRST AID MEASURES

Inhalation : Remove from further exposure. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with mechanical device or use mouth-to-mouth resuscitation with a mouthpiece.

Skin contact : Remove contaminated clothing. Dry wipe exposed skin and cleanse with hand cleaner, soap and water. Launder contaminated clothing before reuse. (See Section 16 - Injection Injury)

Eye contact : Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Ingestion : Seek immediate medical attention. Do not induce vomiting.

Note to doctors : Material if aspirated into the lungs may cause chemical pneumonitis.

Treat appropriately.



Royal Adhesives Industries

NEOPRENE THINNERS –SC11

5. FIRE-FIGHTING MEASURES

Extinguishing media : Carbon dioxide, foam, dry chemical and water fog.
Special fire fighting procedure : Water spray should only be used to keep fire-exposed containers cool ,flush spills away from exposures, disperse vapours and protect personnel attempting to stop leak. Prevent runoff from fire control or dilution from entering streams, municipal sewers, or drinking water supply.
Special protective equipment for firefighters : For fires in enclosed areas, fire fighters must use Self-Contained Breathing Apparatus.
Unusual fire and explosive hazards: Vapour accumulation could flash or explode if in contact with an open flame.
Products of decomposition : Carbon monoxide.
Flash Point : Approx 5 °C (ASTM D-56)
Upper Explosion Limit : 7.1 %(V)
Lower Explosion Limit : 1.2 %(V)
NFPA Hazard Id : Health: 2; Flammability: 3; Reactivity: 0

6. ACCIDENTAL RELEASE MEASURES

Procedure if material is released or spilled : Report spills/releases as required to appropriate authorities.
Methods for cleaning up : SMALL SPILLS: Eliminate all ignition sources. Remove leaking containers to detached area. Absorb on fire-retardant treated sawdust, diatomaceous earth, etc .Shovel up with spark-resistant utensils for later disposal at an approved facility, in accordance with current laws and regulations.
LARGE SPILLS: Contain material and pump back to holding tank for disposal or recycling in accordance with product characteristics and applicable regulations.
Personal precautions : See Section 8.
Environmental precautions : Prevent spills from entering municipal sewers or drains and contact with soil.

7. HANDLING AND STORAGE

Safe handling advice : Avoid contact with eyes. Use in well ventilated area away from all ignition sources. Avoid sparking conditions. Ground and bond all transfer equipment.
Storage information : Storage containers should be grounded and bonded. In the case of drums they should also be equipped with self-closing valves, pressure vacuum bungs and flame arresters.
Storage and handling procedures: Electrical equipment and fittings must comply with local fire prevention regulations for this class of product. Refer to national or local regulations covering safety at petroleum handling and storage areas for this product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits (OELs)

Components CAS-No. Source TWA Value Notations

Component	CAS-No.	Source	TWA	Value	Notations	
Benzene	71-43-2	ACGIH(TLV)	LTEL	1,6mg/m ³	0,5ppm	
			STEL	8mg/m ³	2,5ppm	
		OSHA (PEL)	LTEL	2mg/m ³	1ppm	
			STEL	16mg/m ³	5ppm	Skin; A1; BEI

LTEL: Long Term Exposure Limits - Time Weight Average (TWA) over 8 hours.
STEL: Short Term Exposure Limits - Time Weight Average (TWA) over 15 Minutes
Note: Limits Shown for guidance only. Follow applicable regulations.



Royal Adhesives Industries

NEOPRENE THINNERS- SC11

Personal Protection Equipment (PPE)

Engineering controls : Use in well ventilated area. Explosive-proof ventilation equipment with local exhaust is desirable.

Respiratory protection : Approved respiratory equipment must be used when airborne concentrations are unknown or exceed the recommended exposure limit.

Self-Contained Breathing Apparatus may be required for use in confined or enclosed spaces.

Eye protection : If splash with liquid is possible, chemical type goggles should be worn.

Skin and body protection : No special equipment required. However, good personal hygiene practices should always be followed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid.

Colour : Colourless

Odour : Aromatic

Solubility : Negligible

Boiling point/range : 110 °C

Melting point/range : -95 °C

Flash Point : Approx.5 °C (ASTM D-56)

Vapour pressure : 22 hPa

Relative vapour density : 3.2

Density : 0.750 g/cm³ @ 20 °C

Viscosity, kinematic : 0.6 mm²/s @ 40 °C

0.3 mm²/s @ 100 °C

10. STABILITY AND REACTIVITY

Stability : Stable.

Conditions to avoid : Heat, sparks, flame and build up of static electricity.

Materials to avoid : Strong oxidizers.

Hazardous decomposition products : Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : (Rats): LD50: > 7 g/kg. Considered to be practically non-toxic based on single dose level testing at 7 g/kg.

Acute inhalation toxicity : (Rats): Practically non-toxic (LC50: greater than 5mg/l). Based on testing of similar products and/or the components.

Acute dermal toxicity : (Rats): LD50: > 2 g/kg. Considered to be practically non-toxic based on single dose level testing at 2 g/kg.

Skin irritation : (Rabbits): Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3). Based on testing of similar products and/or the components.

Eye irritation : (Rabbits): Practically non-irritating. Eye irritation scores: 12.0 at 24 hours, 18.0 at 48 hours, 18.0 at 72 hours, 16.0 at 4 days, 9.0 at 7 days.

Mutagenicity : Toluene was negative in a series of mutagenic tests.

Neurological effects : Toluene Inhalation studies (1500 ppm), 6 hours/day, 5 days/week for 6 months in rats: No neurotoxicity.



Royal Adhesives Industries

NEOPRENE THINNERS-SC 11

Carcinogenicity : No carcinogenic effects were observed when toluene was applied to the skin of mice for two years. A 2 year NTP inhalation study at levels up to 1200 ppm toluene showed no carcinogenic effects in rats or mice. Prolonged or repeated exposure to toluene does not result in bone marrow injury or blood changes characteristic of benzene.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability : Readily Biodegradable.

Physico-chemical removability : Water solubility: 500 mg/l @ 20 C.

Bioaccumulation : Bioconcentration factor (BCF) < 100.

Ecotoxicity effects

Toxicity to fish : (Salmon) LC/EC50: 8.1 mg/l at 96 hours.

Toxicity to aquatic organisms : (Daphnia magna) LC/EC50: 6 mg/l at 48 hours.

(Green algae) LC/EC50: 9.4 mg/l at 8 ho

Further information on ecology

Remarks : This environmental assessment is based on test data for this product (or estimated data).

13. DISPOSAL CONSIDERATIONS

Waste disposal : Product is suitable for burning for fuel value in compliance with applicable laws and regulations, and consideration of product characteristics at time of disposal.

Contaminated packaging : Empty containers retain residue (liquid and/or vapour) 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 AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

Other regulations : Disposal of unused product may be subject to RCRA regulations (40 CFR 261). Disposal of the used product may also be regulated due to ignitability, corrosivity, reactivity, or toxicity as determined by the Toxicity Characteristic Leaching Procedure (TCLP).

Flash Point : 9 °C (ASTM D-56)



Royal Adhesives Industries

NEOPRENE THINNERS-SC11

14. TRANSPORT INFORMATION

ADR

Proper shipping name : Flammable liquid n.o.s. (contains n-HEXANE)

UN number : 1993

DOT ERG number : 128

Class : 3

Letter : F

Packing group : II

Labelling number : 3

Product Reportable Quantity : 300 kg

CFR

Proper shipping name : Flammable liquid n.o.s. (contains n-HEXANE)

UN number : 1993

DOT ERG number : 128

Class : 3

Letter : F

Packing group : II

Labelling number : 3

Product Reportable Quantity :

IATA_C

Proper shipping name : Flammable Liquid n.o.s (contains n-Hexane)

UN number : 1993

DOT ERG number : 128

Class : 3

Letter : F

Packing group : II

Labelling number : 3

Product Reportable Quantity :300kg

IMDG

Proper shipping name : Flammable Liquid n.o.s (contains n-HEXANE)

UN number : 1993

DOT ERG number : 128

Class : 3

Letter : F

Packing group : II

Labelling number : 3

Product Reportable Quantity :

Marine pollutant : Marine pollutant

Medical First Aid Guide (MFAG) table: 310 Emergency Schedule (EmS) number : 3-07

IMDG code page number : 3285

NEOPRENE THINNERS-SC11

15. REGULATORY INFORMATION

US OSHA Hazard

Communication Standard: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined to be hazardous.

U.S. Drug Enforcement Administration Chemical Diversion and Trafficking Act: Sales, receipts, movements or unexplainable losses of the following chemical(s) may require record keeping and reporting in accordance with 21 CFR 1310/1313.

Contains Toluene.

Governmental Inventory Status : All components comply with TSCA, EINECS/ELINCS, AICS, METI, DSL, KECI, ENCS, PICCS and IECSC.

EU Labelling : Product is dangerous as defined by the European Union Dangerous Substances/Preparations Directives.

Symbols : F, Xn, X1

Highly flammable, Harmful

R-Phrase(s) : R11, R20/22, R36/38

Highly flammable., Harmful by inhalation.

S-phrase(s) : S16, S24, S26, S29, S33, S36/37, S39, S62

Keep away from sources of ignition - No smoking., Avoid contact with

eyes., Do not empty into drains., Take precautionary measures against static discharges.

Note : Contains Toluene and Hexane.

15. Regulatory information

Labelling



Regulatory base

Symbol(s) F: Highly flammable

Xn: Harmful

SARA

U.S. Superfund : This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

Amendments and Reauthorization Act SARA Title III

SARA (311/312) Reportable Hazard Categories: Fire Chronic Acute

SARA (313) Toxic Release Chemicals.: Toluene (108-88-3) - Conc > 98 %.

The following product ingredients are cited on the lists below

Chemical name CAS-No. Concentration [%] List Citations

Toluene 108-88-3 > 99.00 1, 10, 17, 18,19, 20, 21, 22,23, 24, 25, 26

Benzene 71-43-2 < 0.10 1, 2, 4, 6, 9,10, 16, 17, 18,19, 20, 21, 22,23, 24, 25, 26

Light Aliphatic Petroleum Solvent 64742-89-9 >85% 1,18,19,20,21,23,25



NEOPRENE THINNERS-SC11

Regulatory List Searched

1 = ACGIH ALL 6 = IARC 1 11 = TSCA 4 17 = CA P65 22 = MI 293
2 = ACGIH A1 7 = IARC 2A 12 = TSCA 5a2 18 = CA RTK 23 = MN RTK
3 = ACGIH A2 8 = IARC 2B 13 = TSCA 5e 19 = FL RTK 24 = NJ RTK
4 = NTP CARC 9 = OSHA CARC 14 = TSCA 6 20 = IL RTK 25 = PA RTK
5 = NTP SUS 10 = OSHA Z 15 = TSCA 12b 21 = LA RTK 26 = RI RTK
Code Key: CARC = Carcinogen; SUS = Suspected Carcinogen

16. OTHER INFORMATION

Note: Product does not contain PCBs.

Health studies have shown that many hydrocarbons pose potential human health risks which may vary from person to person. Information provided on this MSDS reflects intended use. This product should not be used for any other applications. In any case, the following advice should be considered:

FIRST AID: If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never induce vomiting or give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician immediately. In case of contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Call a physician if symptoms occur. Wash clothing before reuse.

INJECTION INJURY WARNING: If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

SAFETY: Keep away from heat, sparks, and flame. Keep container closed. Use with adequate ventilation. Avoid breathing mist or vapour. Avoid prolonged or repeated skin contact.

For industrial use only. Not intended or suitable for use in or around a household or dwelling. Attention.

Empty container may contain product residue, including flammable or explosive vapours. Do not cut, puncture, or weld on or near container. All label warnings and precautions must be observed until container has been thoroughly cleaned or destroyed.

Precautionary Label Text: CONTAINS Toluene and Hexane

DANGER: HARMFUL OR FATAL IF SWALLOWED. FLAMMABLE VAPOUR HARMFUL. MAY CAUSE SKIN IRRITATION ON PROLONGED, REPEATED CONTACT.

Disclaimer

All reasonable efforts were exercised to compile this MSDS in accordance with ISO requirements.

This MSDS summarizes at the date of issue our best knowledge of the health, safety and environmental hazard information related to this product, and in particular how to safely handle, use, store and transport the product in the workplace. Since Royal Adhesives Industries and its subsidiaries cannot anticipate or control conditions under which the product may be handled, used, stored or transported, each user must, prior to usage, review this MSDS in the context of how the user intends to handle, use, store or transport the product in the workplace and beyond, and communicate such information to all relevant parties. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company. We shall not assume any liability for the accuracy or completeness of the information contained herein which may be subject to change without notice or any advice given unless there has been gross negligence on our part. In such event our liability shall be limited only to direct damages suffered. Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request. All risk associated with the possession and application of the product passes on delivery.