RS SUPERGLUE GEL - ACTIVATOR PART B #473-439

Chemwatch Independent Material Safety Data Sheet
Issue Date: 4-Dec-2008
NA317TC

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Version No:2.0
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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
RS SUPERGLUE GEL - ACTIVATOR PART B #473-439

PROPER SHIPPING NAME
HYDROCARBONS, LIQUID, N.O.S.(contains naphtha petroleum, light, hydrotreated)

PRODUCT USE
Activator for cyanoacrylate adhesives.

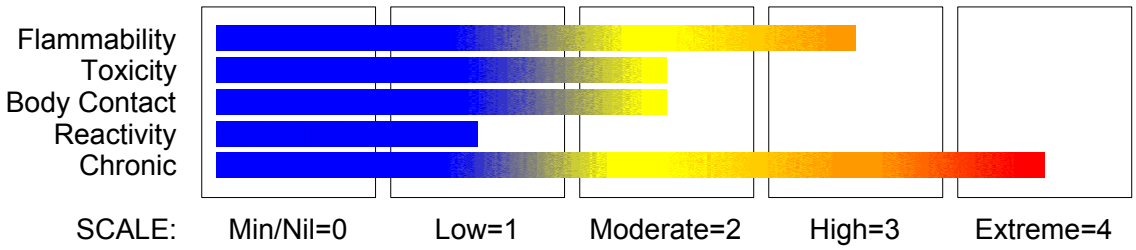
SUPPLIER

Company: RS Components	Company: RS Components
Address:	Address:
Units 30 & 31	25 Pavesi Street
Warehouse World	Smithfield
761 Great South Road	NSW2164
Penrose Auckland	AUS
	Telephone: 1300 656 636
	Emergency Tel: 1800 039 008
	Emergency Tel: 03 9573 3112
	Fax: 1300 656 696

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE
HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

CHEMWATCH HAZARD RATINGS



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POISONS SCHEDULE
S5

RISK
- Highly flammable.
- Irritating to skin.

- May cause CANCER.
- May cause heritable genetic damage.

- Harmful: danger of serious damage to health by prolonged exposure through inhalation in contact with skin and if swallowed.
- Toxic to aquatic organisms may cause long- term adverse effects in the aquatic environment.
- HARMFUL- May cause lung damage if swallowed.

- Vapours may cause drowsiness and dizziness.

- Ingestion may produce health damage*.
- Cumulative effects may result following exposure*.
- May produce discomfort of the eyes and respiratory tract*.
- Possible skin sensitiser*.

- Repeated exposure potentially causes skin dryness and cracking*.

* (limited evidence).

SAFETY
- Keep locked up.
- Keep away from sources of ignition. No smoking.
- Do not breathe gas/fumes/vapour/spray.
- In case of insufficient ventilation wear suitable respiratory equipment.
- Use only in well ventilated areas.

- Keep container in a well ventilated place.

- Avoid exposure - obtain special instructions before use.
- To clean the floor and all objects contaminated by this material use water and detergent.
- Keep container tightly closed.
- This material and its container must be disposed of in a safe way.
- Keep away from food drink and animal feeding stuffs.
- In case of contact with eyes rinse with plenty of water and contact Doctor or Poisons Information Centre.
- Use appropriate container to avoid environmental contamination.
- Avoid release to the environment. Refer to special instructions/Safety data sheets.
- This material and its container must be disposed of as hazardous waste.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
naphtha petroleum, light, hydrotreated	64742-49-0.	> 90
N, N- dimethyl- p- toluidine	99-97-8	<1

Section 4 - FIRST AID MEASURES

SWALLOWED
- If swallowed do NOT induce vomiting.

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- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

EYE

■ If this product comes in contact with the eyes:
- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- If pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

■ If skin contact occurs:
- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Other measures are usually unnecessary.

NOTES TO PHYSICIAN

■ Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:
- Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO2 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology].

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

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FIRE FIGHTING
• Alert Fire Brigade and tell them location and nature of hazard.
• May be violently or explosively reactive.
• Wear breathing apparatus plus protective gloves.
• Prevent, by any means available, spillage from entering drains or water course.
• Consider evacuation (or protect in place).
• Fight fire from a safe distance, with adequate cover.
• If safe, switch off electrical equipment until vapour fire hazard removed.
• Use water delivered as a fine spray to control the fire and cool adjacent area.
• Avoid spraying water onto liquid pools.
• Do not approach containers suspected to be hot.
• Cool fire exposed containers with water spray from a protected location.
• If safe to do so, remove containers from path of fire.

FIRE/EXPLOSION HAZARD
• Liquid and vapour are highly flammable.
• Severe fire hazard when exposed to heat, flame and/or oxidisers.
• Vapour may travel a considerable distance to source of ignition.
• Heating may cause expansion or decomposition leading to violent rupture of containers.
• On combustion, may emit toxic fumes of carbon monoxide (CO).
Combustion products include: carbon dioxide (CO2), nitrogen oxides (NOx), other pyrolysis products typical of burning organic material.

FIRE INCOMPATIBILITY
• Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM: 3WE

Personal Protective Equipment
Gas tight chemical resistant suit.

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS
• Remove all ignition sources.
• Clean up all spills immediately.
• Avoid breathing vapours and contact with skin and eyes.
• Control personal contact by using protective equipment.
• Contain and absorb small quantities with vermiculite or other absorbent material.
• Wipe up.
• Collect residues in a flammable waste container.

MAJOR SPILLS
• Clear area of personnel and move upwind.
• Alert Fire Brigade and tell them location and nature of hazard.
• May be violently or explosively reactive.
• Wear breathing apparatus plus protective gloves.
• Prevent, by any means available, spillage from entering drains or water course.
• Consider evacuation (or protect in place).
• No smoking, naked lights or ignition sources.
• Increase ventilation.
• Stop leak if safe to do so.
• Water spray or fog may be used to disperse /absorb vapour.
• Contain spill with sand, earth or vermiculite.
• Use only spark-free shovels and explosion proof equipment.

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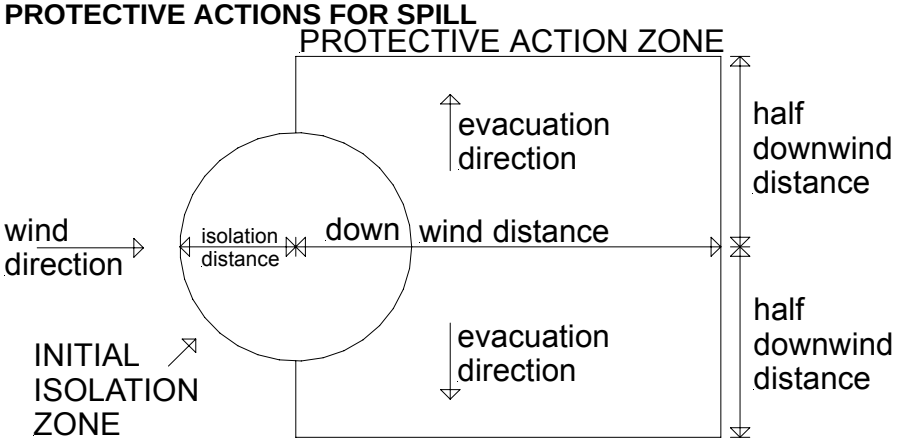
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services.

PROTECTIVE ACTIONS FOR SPILL



From IERG (Canada/Australia)

Isolation Distance	25 metres
Downwind Protection Distance	300 metres
IERG Number	14

FOOTNOTES

1 PROTECTIVE ACTION ZONE is defined as the area in which people are at risk of harmful exposure. This zone assumes that random changes in wind direction confines the vapour plume to an area within 30 degrees on either side of the predominant wind direction, resulting in a crosswind protective action distance equal to the downwind protective action distance.

2 PROTECTIVE ACTIONS should be initiated to the extent possible, beginning with those closest to the spill and working away from the site in the downwind direction. Within the protective action zone a level of vapour concentration may exist resulting in nearly all unprotected persons becoming incapacitated and unable to take protective action and/or incurring serious or irreversible health effects.

3 INITIAL ISOLATION ZONE is determined as an area, including upwind of the incident, within which a high probability of localised wind reversal may expose nearly all persons without appropriate protection to life-threatening concentrations of the material.

4 SMALL SPILLS involve a leaking package of 200 litres (55 US gallons) or less, such as a drum (jerrican or box with inner containers). Larger packages leaking less than 200 litres and compressed gas leaking from a small cylinder are also considered "small spills".

LARGE SPILLS involve many small leaking packages or a leaking package of greater than 200 litres, such as a cargo tank, portable tank or a "one-tonne" compressed gas cylinder.

5 Guide 128 is taken from the US DOT emergency response guide book.

6 IERG information is derived from CANUTEC - Transport Canada.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Containers, even those that have been emptied, may contain explosive vapours.
- Do NOT cut, drill, grind, weld or perform similar operations on or near containers.

Contains low boiling substance:
Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.

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- Check for bulging containers.
- Vent periodically
- Always release caps or seals slowly to ensure slow dissipation of vapours.
- DO NOT allow clothing wet with material to stay in contact with skin.
- Electrostatic discharge may be generated during pumping - this may result in fire.
- Ensure electrical continuity by bonding and grounding (earthing) all equipment.
- Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<=1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec).
- Avoid splash filling.
- Do NOT use compressed air for filling discharging or handling operations.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights, heat or ignition sources.
- When handling, DO NOT eat, drink or smoke.
- Vapour may ignite on pumping or pouring due to static electricity.
- DO NOT use plastic buckets.
- Earth and secure metal containers when dispensing or pouring product.
- Use spark-free tools when handling.
- Avoid contact with incompatible materials.
- Keep containers securely sealed.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.

SUITABLE CONTAINER
- Packing as supplied by manufacturer.
- Plastic containers may only be used if approved for flammable liquid.
- Check that containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY
- Avoid reaction with oxidising agents.

STORAGE REQUIREMENTS
- Store in original containers in approved flame-proof area.
- No smoking, naked lights, heat or ignition sources.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- Keep containers securely sealed.
- Store away from incompatible materials in a cool, dry well ventilated area.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS

X	X	X	X	X	+

+: May be stored together
O: May be stored together with specific preventions
X: Must not be stored together

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA mg/m³	Notes
Australia Exposure Standards	naphtha petroleum, light, hydrotreated (Petrol (gasoline))	900	(see Chapter 16)

The following materials had no OELs on our records
• N, N- dimethyl- p- toluidine: CAS:99- 97- 8

MATERIAL DATA

RS SUPERGLUE GEL - ACTIVATOR PART B #473-439:
Not available

NAPHTHA PETROLEUM, LIGHT, HYDROTREATED:
■ Odour Threshold Value: 34 ppm (detection), 97 ppm (recognition)
NOTE: Detector tubes for benzene, measuring in excess of 0.5 ppm, are commercially available. The relative quality of epidemiological data and quantitative health risk assessments related to documented and theoretical leukaemic deaths constitute the basis of the TLV-recommendation.
One study [Dow Chemical] demonstrates a significant fourfold increase in myelogenous leukaemia for workers exposed to average benzene concentrations of about 5 ppm for an average of 9 years and that 2 out of four individuals in the study who died from leukaemia were characterised as having been exposed to average benzene levels below 2 ppm. Based on such findings the estimated risk of leukaemia in workers exposed at daily benzene concentrations of 10 ppm for 40 years is 155 times that of unexposed workers; at 1 ppm the risk falls to 1.7 times whilst at 0.1 ppm the risk is about the same in the two groups. A revision of the TLV-TWA to 0.1 ppm was proposed in 1990 but this has been revised upwards as result of industry initiatives.
Typical toxicities displayed following inhalation:
• At 25 ppm (8 hours): no effect
• 50-150 ppm: signs of intoxication within 5 hours
• 500-1500 ppm: signs of intoxication within 1 hour
• 7500 ppm: severe intoxication within 30-60 minutes
• 20000 ppm: fatal within 5-10 minutes
Some jurisdictions require that health surveillance be conducted on occupationally exposed workers. Some surveillance should emphasise (i) demography, occupational and medical history and health advice (ii) baseline blood sample for haematological profile (iii) records of personal exposure.
for heptane (all isomers)
The TLV-TWA is protective against narcotic and irritant effects which are greater than those of pentane or n-hexane but less than those of octane. The TLV-TWA applies to all isomers.
Inhalation by humans of 1000 ppm for 6 minutes produced slight dizziness. Higher concentrations for shorter periods produce marked vertigo, incoordination and hilarity. Signs of central nervous system depression occur in the absence of mucous membrane irritation. Brief exposures to high levels (5000 ppm for 4 minutes) produce nausea, loss of appetite and a "gasoline-like" taste in the mouth that persists for many hours after exposure ceases.
Odour threshold: 0.25 ppm.
The TLV-TWA is protective against ocular and upper respiratory tract irritation and is recommended for bulk handling of gasoline based on calculations of hydrocarbon content of gasoline vapour. A STEL is recommended to prevent mucous membrane and ocular irritation and prevention of acute depression of the central nervous system. Because of the wide variation in molecular weights of its components, the conversion of ppm to mg/m3 is approximate. Sweden recommends hexane type limits of 100 ppm and heptane and octane type limits of 300 ppm. Germany does not assign a value because of the widely differing compositions and resultant differences in toxic properties.
Odour Safety Factor (OSF)
OSF=0.042 (gasoline).
for petroleum distillates:
CEL TWA: 500 ppm, 2000 mg/m3 (compare OSHA TWA).

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N,N-DIMETHYL-P-TOLUIDINE:
- No exposure limits set by NOHSC or ACGIH.

PERSONAL PROTECTION

EYE
- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET
- Wear chemical protective gloves, eg. PVC.
- Wear safety footwear or safety gumboots, eg. Rubber.

NOTE:
- The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
- Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.

Suitability and durability of glove type is dependent on usage. Factors such as:
- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity,

are important in the selection of gloves.
- Neoprene rubber gloves.

OTHER
- Overalls.
- PVC Apron.
- PVC protective suit may be required if exposure severe.
- Eyewash unit.
- Ensure there is ready access to a safety shower.
- Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.
- For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets), non sparking safety footwear.

RESPIRATOR
- Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half- face Respirator	Full- Face Respirator

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1000	10	ANO- AUS	-
1000	50	-	ANO- AUS
5000	50	Airline *	-
5000	100	-	ANO- 2
10000	100	-	ANO- 3
	100+		Airline**

* - Continuous Flow ** - Continuous-flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

■ General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25- 0.5 m/s (50- 100 f/min)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5- 1 m/s (100- 200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1- 2.5 m/s (200- 500 f/min.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5- 10 m/s (500- 2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood- local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.
Refer also to protective measures for the other component used with the product. Read both MSDS before using; store and attach MSDS together.

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE
Colourless, highly flammable liquid with paraffinic hydrocarbon odour; does not mix with water.

PHYSICAL PROPERTIES
Liquid.
Does not mix with water.
Floats on water.

Molecular Weight: Not Available	Boiling Range (°C): 94- 99	Melting Range (°C): Not Available
Specific Gravity (water=1): 0.71	Solubility in water (g/L): Immiscible	pH (as supplied): Not Available
pH (1% solution): Not Available	Vapour Pressure (kPa): 5	Volatile Component (%vol): Not Available
Evaporation Rate: Fast	Relative Vapour Density (air=1): Not Available	Flash Point (°C): - 5
Lower Explosive Limit (%): 1	Upper Explosive Limit (%): 7	Autoignition Temp (°C): 215
Decomposition Temp (°C): Not Available	State: Liquid	Viscosity: 10.6 cSt@40°C

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY
• Presence of incompatible materials.
• Product is considered stable.
• Hazardous polymerisation will not occur.
For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED
■ Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.
Swallowing of the liquid may cause aspiration of vomit into the lungs with the risk of haemorrhaging, pulmonary oedema, progressing to chemical pneumonitis; serious consequences may result.
Signs and symptoms of chemical (aspiration) pneumonitis may include coughing, gasping, choking, burning of the mouth, difficult breathing, and bluish coloured skin (cyanosis).
Rats given isoparaffinic hydrocarbons (after 18-24 hours fasting) showed lethargy and/or general weakness, ataxia and diarrhoea. Symptoms disappeared within 24-28 hours.
Ingestion of petroleum hydrocarbons may produce irritation of the pharynx, oesophagus, stomach and small intestine with oedema and mucosal ulceration resulting; symptoms include a burning sensation in the mouth and throat. Large amounts may produce narcosis with nausea and vomiting, weakness or dizziness, slow and shallow respiration, swelling of the abdomen, unconsciousness and convulsions. Myocardial injury may produce arrhythmias, ventricular fibrillation and electrocardiographic changes. Central nervous system depression may also occur. Light aromatic hydrocarbons produce a warm, sharp, tingling sensation on contact with taste buds and may anaesthetise the tongue. Aspiration into the lungs may produce coughing, gagging and a chemical

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pneumonitis with pulmonary oedema and haemorrhage.

EYE
■ Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.
Petroleum hydrocarbons may produce pain after direct contact with the eyes. Slight, but transient disturbances of the corneal epithelium may also result. The aromatic fraction may produce irritation and lachrymation.

SKIN
■ Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis. The material may accentuate any pre-existing dermatitis condition.
Open cuts, abraded or irritated skin should not be exposed to this material.
Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
The liquid may be miscible with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives .
Aromatic hydrocarbons may produce skin irritation, vasodilation with erythema and changes in endothelial cell permeability. Systemic intoxication, resulting from contact with the light aromatics, is unlikely due to the slow rate of permeation. Branching of the side chain appears to increase percutaneous absorption.

INHALED
■ Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.
Limited evidence or practical experience suggests that the material may produce irritation of the respiratory system, in a significant number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system.
Inhalation hazard is increased at higher temperatures.
High inhaled concentrations of mixed hydrocarbons may produce narcosis characterised by nausea, vomiting and lightheadedness. Inhalation of aerosols may produce severe pulmonary oedema, pneumonitis and pulmonary haemorrhage. Inhalation of petroleum hydrocarbons consisting substantially of low molecular weight species (typically C2-C12) may produce irritation of mucous membranes, incoordination, giddiness, nausea, vertigo, confusion, headache, appetite loss, drowsiness, tremors and anaesthetic stupor. Massive exposures may produce central nervous system depression with sudden collapse and deep coma; fatalities have been recorded. Irritation of the brain and/or apnoeic anoxia may produce convulsions. Although recovery following overexposure is generally complete, cerebral micro-haemorrhage of focal post-inflammatory scarring may produce epileptiform seizures some months after the exposure. Pulmonary episodes may include chemical pneumonitis with oedema and haemorrhage. The lighter hydrocarbons may produce kidney and neurotoxic effects. Pulmonary irritancy increases with carbon chain length for paraffins and olefins. Alkenes produce pulmonary oedema at high concentrations. Liquid paraffins may produce anaesthesia and depressant actions leading to weakness, dizziness, slow and shallow respiration, unconsciousness, convulsions and death. C5-7 paraffins may also produce polyneuropathy. Aromatic hydrocarbons accumulate in lipid rich tissues (typically the brain,

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spinal cord and peripheral nerves) and may produce functional impairment manifested by nonspecific symptoms such as nausea, weakness, fatigue and vertigo; severe exposures may produce inebriation or unconsciousnes
Many of the petroleum hydrocarbons are cardiac sensitisers and may cause ventricular fibrillations.
Central nervous system (CNS) depression may include nonspecific discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.
Some aliphatic hydrocarbons produce axonal neuropathies. Isoparaffinic hydrocarbons produce injury to the kidneys of male rats. When albino rats were exposed to isoparaffins at 21.4 mg/l for 4 hours, all animals experienced weakness, tremors, salivation, mild to moderate convulsions, chromodacryorrhoea and ataxia within the first 24 hours. Symptoms disappeared after 24 hours.
Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. Vapour is heavier than air and may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure.
Acute effects from inhalation of high concentrations of vapour are pulmonary irritation, including coughing, with nausea; central nervous system depression - characterised by headache and dizziness, increased reaction time, fatigue and loss of co-ordination.
The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing.

Before starting consider control of exposure by mechanical ventilation.

CHRONIC HEALTH EFFECTS
■ Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems.
There exists limited evidence that shows that skin contact with the material is capable either of inducing a sensitisation reaction in a significant number of individuals, and/or of producing positive response in experimental animals.
Repeated or prolonged exposure to mixed hydrocarbons may produce narcosis with dizziness, weakness, irritability, concentration and/or memory loss, tremor in the fingers and tongue, vertigo, olfactory disorders, constriction of visual field, paraesthesias of the extremities, weight loss and anaemia and degenerative changes in the liver and kidney. Chronic exposure by petroleum workers, to the lighter hydrocarbons, has been associated with visual disturbances, damage to the central nervous system, peripheral neuropathies (including numbness and paraesthesias), psychological and neurophysiological deficits, bone marrow toxicities (including hypoplasia possibly due to benzene) and hepatic and renal involvement. Chronic dermal exposure to petroleum hydrocarbons may result in defatting which produces localised dermatoses. Surface cracking and erosion may also increase susceptibility to infection by microorganisms. One epidemiological study of petroleum refinery workers has reported elevations in standard mortality ratios for skin cancer along with a dose-response relationship indicating an association between routine workplace exposure to petroleum or one of its constituents and skin cancer, particularly melanoma. Other studies have been unable to confirm this finding.

TOXICITY AND IRRITATION
■ Not available. Refer to individual constituents.

NAPHTHA PETROLEUM, LIGHT, HYDROTREATED:
■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

■ Lifetime exposure of rodents to gasoline produces carcinogenicity although the relevance to humans has been questioned. Gasoline induces kidney cancer in male rats as a consequence of accumulation of the alpha2-microglobulin protein in hyaline droplets in the male (but not female) rat kidney. Such abnormal accumulation represents lysosomal overload and leads to chronic renal tubular cell degeneration, accumulation of cell debris, mineralisation of renal medullary tubules and necrosis. A sustained regenerative proliferation occurs in epithelial cells with subsequent neoplastic transformation with continued exposure. The alpha2-microglobulin is produced under the influence of hormonal controls in male rats but not in females and, more importantly, not in humans.
The High Benzene Naphthas (HBNs) Category was developed for the HPV Program by grouping ethylene manufacturing streams (products) that exhibit commonalities from both manufacturing process and compositional perspectives. intermediates. The category includes hydrocarbon product streams associated with the ethylene industry that contain significant levels of benzene, generally with a benzene content greater than 10% and

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averaging about 55%. This grouping of CAS numbers represents hydrocarbon streams with a carbon number distribution that is predominantly C5- C11, through components boiling at 350 C or higher..
Benzene, as the predominant component in most streams, is expected to be the key driver with respect to health effects endpoints within the SIDS battery of tests. However, as the concentration of benzene is decreased and the concentrations of other components are increased, the observed effects of benzene are expected to diminish and the effects of other components are expected to increase.
The existing epidemiology and toxicology database for the components other than benzene and for mixtures containing the components is extensive. All components present in the streams at concentrations greater than 5% have been tested in at least one toxicity study. Those components having only limited data lack structural alerts for mammalian toxicity and data exist for their structural analogs. The C5 and C6 alkanes and alkenes present in the streams are not expected to significantly contribute to the toxicity profile as these substances are present in the streams at low concentrations
and, with the exception of hexane, generally have a low level of toxicity. The toxic effects of hexane (present at < 15%) are unlikely to be observed due to the presence of the other components.
Genotoxicity: When tested as pure substances, some of the components other than benzene have caused genetic damage and adverse target organ effects in repeated-dose animal studies. When tested as pure substances, some of the components other than benzene have caused genetic damage and adverse target organ effects in repeated-dose animal studies. However, since the biologically active components of the High Benzene Naphthas streams are metabolized through a common P450 metabolic pathway, it is anticipated that multiple components will compete for the same active enzyme sites. Component toxicities, which are dependent on the formation of biologically active metabolites, may be reduced as less metabolite(s) will be produced through competition for these sites. Direct support for reduction or elimination of toxicities of individual components is provided by results of an existing mouse bone marrow micronucleus test with one of the High Benzene Naphthas streams, Hydrotreated C6-8 Fraction. This stream, containing approximately 55% benzene, was negative in a mouse bone marrow micronucleus test when administered by oral gavage at 5000 mg/kg to male and female CD-1 mice. Several studies have shown that benzene administered orally to CD-1 mice induces high frequencies of micronuclei in bone marrow erythrocytes at doses as low as 110 mg/kg . The presence in the Hydrotreated C6-8 Fraction of other components (approximately 25% toluene, 10% xylene, 7% pentane, 7% ethylbenzene, 3% cyclohexane, and 2% hexane) apparently inhibited the expected clastogenicity of benzene. Other similar interactions between components of the category have also been reported.
Repeat dose toxicity: Repeated oral or inhalation exposures to many of the components of the streams in the category have been shown to cause adverse health effects in a variety of organs. However, existing data also show that antagonistic and synergistic interactions occur between some components comprising the streams.
Developmental toxicity: Developmental toxicity data exist for most components present in this category at concentrations greater than 5% . In these studies, no convincing evidence was seen for teratogenicity in the absence of maternal toxicity. Foetotoxicity has been reported for some components, but mostly in the presence of maternal toxicity. A Pyrolysis
Gasoline Fraction stream similar to the Pyrolysis Gasoline streams in the HBNs Category has been tested in an oral developmental toxicity study in rabbits. No developmental effects were seen.
Reproductive toxicity: Some data for benzene indicates adverse gonadal effects (e.g., atrophy/degeneration, decrease in spermatozoa, moderate increases in abnormal sperm forms), data on reproductive outcomes are either inconclusive or conflicting. However, most studies indicate no effects on reproductive indices, even at high doses. Reproductive organ effects were seen after inhalation exposure to isoprene and hexane.
Gene Mutation: Of the identified category components present at concentrations greater than 5%, only 1,3-butadiene
and benzene have consistently caused gene mutations in genetic toxicity tests . 1,3- Butadiene was positive in several in vivo and in vitro tests. Benzene was negative in several standard tests but was positive in an in vivo HPRT gene mutation test in mouse spleenocytes. Based on the data for components, the streams in the category are predicted to be negative in the HPV gene mutation test (Ames Test). Negative Ames Tests conducted with two streams (one from this category and one similar to category streams) support this prediction
Chromosome Aberration:: Benzene has caused chromosome aberrations in in vitro and in vivo tests. The other most prevalent component in streams in this category, toluene, is negative in both in vitro and in vivo tests. Of the remaining identified category components present at concentrations greater than 5%, only vinyl acetate, 1,3-butadiene, isoprene, hexane, and naphthalene have been reported to cause chromosome aberrations.
No significant acute toxicological data identified in literature search.

N,N-DIMETHYL-P-TOLUIDINE:
■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

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TOXICITY
Intraperitoneal (mouse) LD50: 212 mg/kg

IRRITATION
Nil Reported

CARCINOGEN

Gasoline (NB: Overall evaluation upgraded from 3 to 2B with supporting evidence from other relevant data)	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	2B
Petroleum solvents	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	3

Section 12 - ECOLOGICAL INFORMATION

Refer to data for ingredients, which follows:

NAPHTHA PETROLEUM, LIGHT, HYDROTREATED:
N,N-DIMETHYL-P-TOLUIDINE:
■ Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters. Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

RS SUPERGLUE GEL - ACTIVATOR PART B #473-439:
N,N-DIMETHYL-P-TOLUIDINE:
NAPHTHA PETROLEUM, LIGHT, HYDROTREATED:
■ DO NOT discharge into sewer or waterways.

RS SUPERGLUE GEL - ACTIVATOR PART B #473-439:
NAPHTHA PETROLEUM, LIGHT, HYDROTREATED:
■ Toxic to aquatic organisms.

RS SUPERGLUE GEL - ACTIVATOR PART B #473-439:
Marine Pollutant: Not Determined

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NAPHTHA PETROLEUM, LIGHT, HYDROTREATED:
■ May cause long-term adverse effects in the aquatic environment.
■ For High Benzene Naphthas (HBNs) category:
Environmental fate:
The chemical components in HBNs are relatively volatile, and if released they would be expected to partition to the air phase to a significant extent. In the air, they are subject to rapid physical degradation through hydroxyl radical attack. Therefore, as a result of both biological and physical degradation processes, these products are not expected to persist in the environment
Read across biodegradation data show that products in the HBNs have the potential to exhibit a high extent of biodegradability. The carbon number of products in this category ranges primarily between C5 to C11. Results for several chemicals, including benzene, with carbon numbers in this range that are contained by these products have been shown to biodegrade from 63 to 100% after 14 or 28 days, while results for several comparable, complex products containing several components range from 21 to 96% after 28 days.
Hydrocarbons are not expected to hydrolyse at a measurable rate.
Ecotoxicity:

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Read across aquatic toxicity data show that HBNs have the potential to produce a moderate level of toxicity in freshwater algae and acute toxicity in freshwater fish and invertebrates. The aquatic toxicity data within a narrow range of values regardless of their varying chemical class content and carbon number range. This is not unexpected, because the constituent chemicals of products in this category are neutral organic hydrocarbons whose toxic mode of action is non-polar narcosis. The mechanism of short-term toxicity for these chemicals is disruption of biological membrane function. The existing fish toxicity database for narcotic chemicals supports a critical body residue (CBR, the internal concentration that causes mortality) of between approximately 2-8 mmol/kg fish (wet weight) , supporting the assessment that these chemicals have equal potencies. When normalized to lipid content, the CBR is approximately 50 umol of hydrocarbon/g of lipid for most organisms . Because the products in this category are all complex mixtures containing relatively similar series of homologous chemicals, their short-term toxicities are expected to fall within the range of toxicity demonstrated by the individual chemicals.
The fish and invertebrate acute and alga toxicity values for individual chemicals and complex products similar to those in this category fall within a range of approximately 1-64 mg/L and overlap between the three trophic levels. Because HBNs will range in paraffin, alkene, and/or aromatic carbon number content within approximately C5 to C11, a range in toxicity for products in this category is expected. Experimental data, this category will exhibit a moderate range of acute toxicity to fish and invertebrates and a moderate range of toxicity to algae. For representative chemicals and products, experimental acute fish toxicity values range between 2.5 to 46 mg/L for two species while acute invertebrate toxicity values range between 0.9 to 32 mg/L for one species . In comparison, alga toxicity values for one species range between 1.0 to 64 mg/L (for biomass and growth rate endpoints), while alga NOELR values range between 1.0 to 51 mg/L (for biomass or growth rate endpoints).
■ For benzene:
log Kow: 1.95-2.15
log Koc: 1.7-2
Koc: 85
log Kom: 1.04-2.56
Half-life (hr) air: 2.4-501
Half-life (hr) H2O surface water: 4.81-384
Half-life (hr) H2O ground: 240-17280
Half-life (hr) soil: 48-922
Henry's Pa m3 /mol: 441-595
Henry's atm m3 /mol: 5.43E-03
BOD 5 if unstated: 2.18
COD: 0.25-2.8
ThOD: 3.1
BCF: 3.5-3.9
Log BCF: 0.54-1.48
Drinking Water Standards: hydrocarbon total: 10 ug/l (UK max.); benzene: 10 ug/l (WHO guideline)
Soil Guidelines: Dutch Criteria: 0.05 mg/kg (detection limit) target; 1 mg/kg (intervention)
Air Quality Standards: 1 ppb averaging time 1 year (UK)
No safe level recommended due to carcinogenic properties (WHO Guideline)
If benzene is released to the atmosphere it remains predominantly in the vapour phase.
Vapour phase benzene is not subject to direct photolysis but reacts with photochemically produced hydroxyl radicals (half-life approximately 13.4 days). Reaction time in polluted atmospheres which contain nitrogen oxide (NO) or sulfur dioxide (SO2) is accelerated (half-life 4-6 hours); products of photooxidation include phenol, nitrophenols, nitrobenzene, formic acid and peroxyacetyl nitrates.
In water, benzene is rapidly volatilised (half-life 2.7 hours).
In soil benzene undergoes rapid volatilisation; it is not absorbed, to any appreciable degree, by sediments.
Benzene does not bioaccumulate in the food chain.
Environmental Fate
Terrestrial fate: A Koc value of 85, indicates that benzene is expected to have high mobility in soil.
Volatilisation of benzene from moist soil surfaces is expected to be an important fate process given a Henry's Law constant of 5.43xX10-3 atm-cu m/mole. The potential for volatilisation of benzene from dry soil surfaces may exist based upon a vapor pressure of 94.8 mm Hg. Benzene is expected to biodegrade in soils based on a biodegradation study in a base-rich para-brownish soil where 20 ppm benzene was 24% degraded in 1 week, 44% in 5 weeks, and 47% in 10 weeks. Anaerobic degradation of benzene in soil is not expected to be an important loss process based on various studies. In one study of chemical biotransformation under nitrate- and sulfate-reducing conditions, benzene was found to be stable for 60 days. In a related study, benzene did

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not undergo biodegradation in situ nor in laboratory controlled soil samples under denitrifying conditions.
Aquatic fate: The Koc value of 85, indicates that benzene is not expected to adsorb to sediment and suspended solids in water. Volatilisation from water surfaces is expected based upon the Henry's Law constant. Using this Henry's Law constant, volatilisation half-lives for a model river and model lake are estimated to be 1 hr and 3.5 days, respectively. Anaerobic degradation of benzene in water is not expected to be an important loss process based on various studies. In one study of chemical biotransformation under nitrate- and sulfate-reducing conditions, benzene was found to be stable for 60 days. In aqueous solution, benzene will react with hydroxyl radical at a reaction rate of 7.8x10+9 L/mol sec; using the average OH radical concentration (1.0x10-17 molec/cu cm), benzene would have a half-life of 103 days. A BCF ranging from 1.1-20 suggests the potential for bioconcentration in aquatic organisms is low.
Aquatic fate: Evaporation was the primary loss mechanism in winter in a mesocosm experiment which simulated a northern bay where the half-life was 13 days. In spring and summer the half-lives were 23 and 3.1 days, respectively. In these cases biodegradation plays a major role and takes about 2 days. However, acclimation is critical and this takes much longer in the colder water in spring. According to one experiment, benzene has a half-life of 17 days due to photodegradation which could contribute to benzene's removal. In situations of cold water, poor nutrients, or other conditions less conducive to microbial growth, photolysis will play a important role in degradation. The half-life of benzene in sea water is about 5 hrs based on its high Henry's Law constant of 5.56x10-3 atm-cu m/mole.
Atmospheric fate: According to a model of gas/particle partitioning of semivolatile organic compounds in the atmosphere benzene, which has a vapour pressure of 94.8 mm Hg at 25 deg C, is expected to exist solely as a vapor in the ambient atmosphere. Vapour-phase benzene is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 13 days, calculated from its rate constant of 1.23x10-12 cu cm/molecule-sec at 25 deg C. The half-life in polluted atmospheres which contain nitrogen oxides or sulfur dioxide has been observed to shorten to 4-6 hrs. Vapour-phase benzene is also degraded in the atmosphere by atmospheric ozone radicals at an extremely slow rate; the half-life for this reaction in air is estimated to be 170,000 days. The reaction rate of benzene with nitrate radical in the atmosphere is estimated to be less than 0.3x10-16 cu cm/molecule sec at 25 deg C; the half-life for this reaction in air is estimated to be greater than or equal to 111 days based on an average concentration of nitrate radicals of 2.4x10+8 molec/cu cm. Benzene has a maximum absorbance frequency of 253 nm suggesting that direct photolysis will not be an important degradation process. Due to benzene's high water solubility, it may be removed from the atmosphere by rainfall
Ecotoxicity:
Fish LC50 (96 h): bass (Morone saxatilis) 5.8-11 mg/l
Fish LC50 24-96 h) fathead minnow (Pimephales promelus) 33-35 mg/l (softwater); 24-32 mg/l (hardwater); bluegill sunfish (Lepomis macrochirus) 22 mg/l; goldfish (Carassius auratus) 36 mg/l (softwater); mosquito fish (Gambusia affinis) 395 mg/l
Fish LC50 (24-48 h): bluegill sunfish (Lepomis macrochirus) 20 mg/l
Fish LC50 (24 h): goldfish (Carassius auratus) 46 mg/l; blue gill sunfish (Lepomis macrochirus) 34 mg/l
Fish LC100 (2 h): blue gill sunfish (Lepomis macrochirus) 60 mg/l
Fish LC50 (14 d): guppy (Poecilia reticulata) 63 mg/l
Fish LC50 (1 h): brown trout yearlings (Salmo trutta) 12 mg/l (static assay)
Ciliate LC100 (24 h): Tetrahymena pyriformis 12.8 mmole/l
Grass shrimp (Palaemonetes pugio) LC50 (96 h): 27 ppm
Shrimp (Crangon fransicorum) LC50 (96 h): 20 mg/l
Crab larvae (Cancer magister) LC50 (96 h): 108 ppm
Mexican axolotl (Ambystoma mexicanum) LC50 (48 h): 370 mg/l (3-4 weeks after hatching)
Clawed toad LC50 (48 h): 190 mg/l (3-4 weeks after hatching).
■ For n-heptane:
log Kow : 4.66
Koc : 2400-8100
Half-life (hr) air : 52.8
Half-life (hr) H2O surface water : 2.9-312
Henry's atm m3 /mol: 2.06
BOD 5 if unstated: 1.92
COD : 0.06
BCF : 340-2000
log BCF : 2.53-3.31
Environmental fate:
Photolysis or hydrolysis of n-heptane are not expected to be important environmental fate processes.

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Biodegradation of n-heptane may occur in soil and water, however volatilisation and adsorption are expected to be more important fate processes. A high Koc (2400-8200) indicates n-heptane will be slightly mobile to immobile in soil. In aquatic systems n-heptane may partition from the water column to organic matter in sediments and suspended solids. The bioconcentration of n-heptane may be important in aquatic environments. the Henry's Law constant suggests rapid volatilisation from environmental waters and surface soils. The volatilisation half-lives from a model river and a model pond (the latter considers the effect of adsorption) have been estimated to be 2.9 hr and 13 days, respectively.
n-Heptane is expected to exist entirely in the vapour phase in ambient air. Reactions with photochemically produced hydroxyl radicals in the atmosphere have been shown to be important (estimated half-life of 2.4 days calculated from its rate constant of 7.15x10-12 cu cm/molecule-sec at 25 deg C). Data also suggests that night-time reactions with nitrate radicals may contribute to the atmospheric transformation of n-heptane, especially in urban environments. n-Heptane does not contain chromophores that absorb at wavelengths >290 nm and therefore is not expected to be susceptible to direct photolysis by sunlight
An estimated BCF of 2,000 using log Kow suggests the potential for bioconcentration in aquatic organisms is very high. Based on 100% degradation after 4 days in water inoculated with gasoline contaminated soil and 100% degradation after 25 days in water inoculated with activated sewage sludge, biodegradation is expected to be an important fate process for n-heptane in water.
Ecotoxicity:
Fish LC50 (48 h): goldfish (Carrasius auratus) 4 mg/l; golden orfe (Idus melanotus) 2940 mg/l; western mosquitofish (Gambusia affinis) 4924 mg/l
Daphnia LC50 (24 h): >10 mg/l
Daphnia EC50 (96 h): 82 mg/l (immobilisation)
Opposum shrimp (Mysidopsis bahia) LC50 (96 h): 0.1 mg/l
Snail EC50 (96 h): 472 mg/l.

N,N-DIMETHYL-P-TOLUIDINE:
■ Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
RS Superglue Gel - Activator Part B #473- 439		No data		
naphtha petroleum, light, hydrotreated		No data		
N, N- dimethyl- p-toluidine	HIGH	No data	LOW	MED

Section 13 - DISPOSAL CONSIDERATIONS

• Recycle wherever possible or consult manufacturer for recycling options.
• Consult State Land Waste Authority for disposal.
• Bury or incinerate residue at an approved site.
• Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION

continued...

Labels Required: FLAMMABLE LIQUID
HAZCHEM: 3WE (ADG6)

Land Transport UNDG:

Class or division:	3	Subsidiary risk:	None
UN No.:	3295	UN packing group:	II

Shipping Name:HYDROCARBONS, LIQUID, N.O.S. (contains naphtha petroleum, light, hydrotreated)

Air Transport IATA:

ICAO/IATA Class:	3	ICAO/IATA Subrisk:	□□
UN/ID Number:	3295	Packing Group:	II
Special provisions:	A3		

Shipping Name: HYDROCARBONS, LIQUID, N.O.S.(CONTAINS NAPHTHA PETROLEUM, LIGHT, HYDROTREATED)

Maritime Transport IMDG:

IMDG Class:	3	IMDG Subrisk:	None
UN Number:	3295	Packing Group:	II
EMS Number:	F- E, S- D	Special provisions:	944
Limited Quantities:	1 L	Marine Pollutant:	Not Determined

Shipping Name: HYDROCARBONS, LIQUID, N.O.S.(contains naphtha petroleum, light, hydrotreated)

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE: S5

REGULATIONS
Regulations for ingredients

naphtha petroleum, light, hydrotreated (CAS: 64742-49-0) is found on the following regulatory lists;
"Australia Hazardous Substances","Australia High Volume Industrial Chemical List (HVICL)","Australia Inventory of Chemical Substances (AICS)","International Council of Chemical Associations (ICCA) - High Production Volume List","OECD Representative List of High Production Volume (HPV) Chemicals"

N,N-dimethyl-p-toluidine (CAS: 99-97-8) is found on the following regulatory lists;
"Australia Hazardous Substances","Australia Inventory of Chemical Substances (AICS)","OECD Representative List of High Production Volume (HPV) Chemicals"

No data for RS Superglue Gel - Activator Part B #473-439 (CW: 18-3361)

Section 16 - OTHER INFORMATION

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.
A list of reference resources used to assist the committee may be found at:

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www.chemwatch.net/references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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This is the end of the MSDS.