

Safety Data Sheet: SYNRG

1. IDENTIFICATION

Product Name:	SYNRG
Other Names:	Environmentally Hazardous Substance, Liquid, NOS (contains piperonyl butoxide)
Recommended Use:	Adjuvant
Distributor:	Key Industries Ltd
Address:	PO Box 65 070 Mairangi Bay, Auckland 0754
Telephone:	09 917 1791
Emergency Phone:	027 4941659
National Poisons Centre:	0800 764 766

2. HAZARDS IDENTIFICATION

Hazard Classification: 6.3B, 6.4A, 9.1B,

Hazards:	Warning
Causes mild skin irritation	Skin corrosion/irritation category 3
Causes serious eye irritation	Serious eye damage/eye irritation category 2
Toxic to aquatic life with long lasting effects	Aquatic toxicity (chronic) category 2

3. COMPOSITION: Information on Ingredients

Ingredient	CAS Number	Concentration (%w/w)
Piperonyl Butoxide	52645-53-1	20.9
Balance – Ingredients of low hazard	Proprietary	To 100%

4. FIRST AID MEASURES

Consult the National Poisons Information Centre 0800 POISON (0800 764 766) or a doctor in every case of suspected chemical poisoning. Never give fluids or induce vomiting if a patient is unconscious or convulsing regardless of cause of injury. If breathing difficulties occur seek medical attention immediately.

Swallowed

If swallowed, do not induce vomiting. If conscious and alert, rinse mouth and drink 1-2 cupfuls of water. Begin artificial respiration if the victim is not breathing. Use mouth to nose rather than mouth to mouth. Obtain urgent medical attention.

Skin Contact

Immediately wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes and other contaminated leather articles such as belts and watchbands. Seek medical attention.

Eye Contact

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses if present and easy to do and continue rinsing. Do NOT allow victim to rub eyes or keep eyes closed. Obtain urgent medical attention.

Inhalation

Move the victim to fresh air immediately. Begin artificial respiration if breathing has stopped. Obtain medical attention immediately.

First Aid facilities

Provide eye baths and safety showers close to areas where exposure may occur.

Medical Attention

Treat symptomatically and supportively, monitoring the development of hypersensitivity reactions with respiratory distress. In all cases consult the National Poisons Centre for the most up to date treatment information.

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5. FIRE FIGHTING MEASURES

Shut off product that may 'fuel' a fire if safe to do so. Allow trained personnel to attend a fire in progress, providing fire fighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable extinguishing media

Water fog, fine spray, alcohol resistant foam, dry chemical powder or carbon dioxide. Do not use water stream directly as this may spread fire or give a violent steam eruption. Cool fire exposed container with water spray.

Hazards from combustion products

Decomposition from combustion will emit acrid smoke and toxic fumes.

Precautions for fire fighters and special protective equipment

Full protective clothing with chemical goggles, butyl or neoprene gloves and self-contained breathing apparatus

Hazchem Code

3Z

Flash Point

<100°C

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Prevent product from escaping to drains and waterways. Contain leaking packaging in a containment vessel or bunded area. Prevent any vapours or dust from building up in confined areas. Ensure that drain valves are closed at all times. Clean up minor spills immediately.

Methods and materials for containment for a major spill

Eliminate sources of ignition. Warn occupants of downwind areas of possible hazards. Keep the public away from the area. Prevent product from entering sewers, watercourses, or low-lying areas. Shut off the source of the spill if safe to do so. Advise relevant authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation. Take measures to minimise the effect on the groundwater. If possible recover product using a pump paying attention to flammability hazards or absorbent material. Collect and seal in properly labelled containers for disposal. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations. In all instances due consideration must be given for First Aid Measures (Section 4), PPE requirements (Section 8), Stability and Reactivity (Section 10) for this material.

7. HANDLING AND STORAGE

Precautions for safe handling

Keep out of reach of children. Keep containers closed. Avoid sources of ignition including smoking. Use only in well-ventilated areas. When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before reuse.

Conditions for safe storage

Store in a cool, dry place away from direct sunlight. Keep away from heat and ignition sources. Store in original containers. Protect from physical damage to prevent accidental release. Do not store with food, feedstuffs, fertilizers and seeds.

Incompatible materials

Natural Rubbers.

Fire Extinguisher Requirements

No specific requirements.

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8. EXPOSURE CONTROLS: Personal Protection

Exposure Limits

No WES TEL or EEL has been set by EPA for this product.

Engineering Controls:

The use of local exhaust ventilation is recommended to control process emissions near the source. Sufficient ventilation should be provided to keep the solvent in air concentrations below any relevant exposure limit. Provide mechanical ventilation of confined spaces. Explosion proof electrical equipment recommended but not required based on the flashpoint of this material.

Hygiene Controls:

Facilities storing or utilising this material should be equipped with an eyewash facility, safety shower and facility for washing hands/face after work.

Personal Protective Equipment

Respiratory Protection: When handling this material it is recommended to use an approved respirator or half face mask complying with OSH and other relevant standards

Eye protection: Always use safety glasses or a chemical goggles when handling this product. Contact lenses may absorb and concentrate irritants, glasses are recommended.

Skin/ Body Protection: Always wear long sleeves and long trousers or coveralls, and enclosed footwear of safety boots when handling this product. It is recommended that chemical resistant gloves (eg nitrile, neoprene) be worn when handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear pale yellow liquid
Boiling Point (°C):	100°C
Melting Point(°C):	NA
Flash Point(°C):	>100
Lower Explosive Limit, LEL (%):	No data available
Upper Explosive Limit, UEL (%):	No data available
SG/ Density, 20°C (g/mL):	1.01 – 1.03
Vapour Pressure, 20°C (kPa):	No data available
Alkalinity/ acidity as pH:	Not applicable
Solubility in water:	Forms an emulsion

The values listed are indicative of this product's physical and chemical properties. For a full product specification, please consult Renovo Technologies.

10. STABILITY AND REACTIVITY

Chemical stability

Stable at room temperature and pressure.

Hazardous decomposition products

Decomposition from combustion will emit acrid smoke and toxic fumes containing carbon oxides and hydrogen chloride.

Specific Materials to Avoid

Strong acids, alkalis, oxidising agents, reducing agents and heat.

Hazardous Polymerisation

Not known to occur.

11. TOXICOLOGICAL INFORMATION

Acute Effects

Ingestion: Low toxicity if swallowed. .

Swallowing large quantities may result in symptomatic effects. Contact a doctor immediately if large quantities are ingested or if concerned.

Eye Contact: The liquid is irritating to the eyes and may result in corneal injury. Avoid eye contact.

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Skin Contact: Mildly irritating. Avoid skin contact.

Inhalation: The vapour/mist is may be discomforting to the upper respiratory tract and lungs.

Chronic Effects

Prolonged or repeated skin contact may cause drying with cracking, or irritation. Persons with pre-existing conditions are advised to limit or avoid product contact.

Other Health Effects Information

Not Available.

Toxicological Information

Oral LD₅₀: >8,000 mg/kg (product, estimated)

Dermal LD₅₀: >150,000 mg/kg (product, estimated)

Inhalation LC₅₀: No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

This product is toxic to the aquatic environment, with the potential for long lasting effects. See hazard classifications in section 15 of this document. No specific ecological data available on this product.

Persistence/ Biodegradability: Piperonyl Butoxide is regarded as bioaccumulative, but non-persistent by EPA.

Mobility: This product is not readily soluble with water limiting its mobility in the environment. This product is likely to have low mobility in the environment and low leaching potential

Aquatic Toxicity:

Fish toxicity LC₅₀: 6.8 mg/L; (product, estimated)

Crustacean EC₅₀: 2.4 mg/L; (product, estimated)

13. DISPOSAL CONSIDERATIONS

Product Disposal

Dispose of product only by using according to label or using an approved waste disposal contractor. If this material as supplied becomes a waste care should be taken to ensure compliance with national and local authorities. It is the responsibility of the waste generator to determine the toxicity and physical properties of the waste generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Do not dispose of via municipal sewers, drains, natural streams or rivers

Packaging Disposal

Triple rinse container and add rinsate to the spray tank. Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities. Packaging may still contain product residue that may be harmful. Incinerate via approved incinerators or crush and bury in an approved landfill. Ensure that empty packaging is managed in accordance with Dangerous Goods and HSNO regulations.

14. TRANSPORT INFORMATION

UN No:	UN3082
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, NOS (contains piperonyl butoxide)
DG Class:	9
Subsidiary Risk:	
Packing Group:	III
Hazchem Code:	3Z
Environmental:	Marine Pollutant

Dangerous Goods Segregation

This product is classified as Dangerous Goods by Road and Rail. Please consult the Land Transport Rule: Dangerous Goods 2005, and NZS 5433:1999 Transport of Dangerous Goods on Land for further information.

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15. REGULATORY INFORMATION

Country/ Region: New Zealand

ACVM Approval Number: N/A

EPA Approval Number: HSR002503

HSNO Classifications: 6.3B: Skin Irritant; 6.4A Eye Irritant; 9.1B Aquatic Ecotoxicant;

HSNO Controls:

Trigger Quantities for this Material:

- Certified Handler Test Certificate: Not Required
- Location/Transit Depot Certificate: Not required
- Hazardous Atmosphere Zone: Not required
- Signage: 1000 L
- Emergency Plan, Secondary Containment: 1000L
- Tracking: Not required

The trigger quantities above must take into account any other hazardous substance that is present at that location. This represents a partial list of the controls for this material. Contact Renovo Technologies Ltd a full list of HSNO controls for this material.

16. OTHER INFORMATION

Reasons for Issue:

Review of SDS. Added GHS hazard labels. Updated HSNO controls.

Abbreviations:

WES: Workplace Exposure Standard

TEL: Tolerable Exposure Limit

EEL: Environmental Exposure Limit

HSNO: Hazardous Substances and New Organisms

References:

- Supplier Safety Data Sheets
- Hazardous Substances Databank
- EPA Chemical Classification Information Database
- PPDB Pesticide Properties Database
- Sax's Dangerous Properties of Industrial Materials, 11th Ed, 2007
- Synapse Chemlib Handbook of Solvents

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the suppliers knowledge. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses, but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact Renovo Technologies Limited.