NIMBUS – SDS

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SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product identifier: **Light/med golden colour liquid**
Identification as on the label/Trade name: **Nimbus**

Relevant identification uses of the substance and uses advised against:
Identified uses: Control of crawling and flying insects and their larvae.
Uses advised against: Use only as directed.

Manufactured & distributed by:
Synvita (PTY) LTD
Registration Holder:
Lifeguard Sciences (PTY) LTD
Reg. No. 2014/079879/07
3 Pentrich Road, Masons Mill, Pietermaritzburg, 3201
+27 33 346 1920
Emergency telephone numbers: Griffon Poison Information Centre (082) 446 8946

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture
The mixture is classified according to

SANS 10234:2008, Regulation EC 1272/2008 [EU-GHS/CLP]	
Hazard classes/Hazard categories	**Hazard statement**
Aspiration Toxicity, category 1	May be fatal if swallowed and enters airway (aspiration hazard)
Hazardous to the Environment, category 1	Very toxic to aquatic life with long lasting effects

For full text of H statements see section 16

The most important adverse effects
The most important adverse physiochemical effects: None.
The most important adverse human health effects: May be fatal if swallowed and enters airway (aspiration hazard).
Label elements
Hazard pictograms:

Signal Word: Danger

Hazard Statements:
H304 May be fatal if swallowed and enters airway (aspiration hazard)
H410 Very toxic to aquatic life with long lasting effects
Precautionary Statements:
P273 Avoid release to the environment. P301+P316 IF SWALLOWED: get emergency medical help immediately. P331 DO NOT induce vomiting. P391 Collet spillage. P405 Store locked up. P501 Dispose of contents/container in accordance with local regulations.
Special labelling of certain mixtures: None
Other hazards: None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture
Ingredients:

Substance name (IUPAC/EC)	CAS –No. EC-No.	Concentration % by weight	Classification EC1272/2008
Pyrethrum	8003-34-7 933-680-0	<1%	Acute Toxicity Oral, Category 4: H302 Acute Toxicity Dermal, Category 4: H312 Acute Toxicity Inhalation, Category 4: H332 Aquatic Acute, Category 1: H400 Aquatic Chronic, Category 1: H410
Piperonyl Butoxide	51-03-6 200-076-7	1-10%	Eye Irritation, Category 2: H319 STOT SE, Category 3: H335 Aquatic Acute, Category 1: H400 Aquatic Chronic, Category 1: H410
Shellsol D70	64742-47-8 265-149-8	40-60%	Aspiration Toxicity, Category 1

For full text of H statements see section 16
There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.
Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:
If misuse of this product results in accidental illness: SEEK MEDICAL ADVICE PROMPLTY AND SHOW THIS SDS TO THE MEDICAL PRACTIONER.

In case of inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial breathing. If breathing is difficult, give oxygen. Get medical attention immediately.
In case of skin contact:
In case of contact, wash skin with soap and water for at least 15 minutes (do not rub skin hard). Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
In case of eye contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
In case of ingestion:

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed:
May be fatal if swallowed and enters airway (aspiration hazard)
Indication of any immediate medical attention and special treatment needed:
Immediate medical attention is required if exposure to the product. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

SECTION 5. FIRE -FIGHTING MEASURES

Extinguisher media:
Suitable extinguisher media: Foam, chemical dry powders and halogenated agents.
SMALL FIRE: See above.
LARGE FIRE: See above.
Unsuitable extinguishing media: Do not use high volume water jet, due to contamination risk.

Specific hazards arising from the mixture:
Contents are combustible but not volatile. Under thermal decomposition may emit irritating and toxic fumes.
Specific extinguishing methods:
Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Keep upwind. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site. Decontaminate area thoroughly by removing all spillage.

Advice for fire-fighters:
Wear NIOSH/MSHA approved self-contained breathing apparatus and full protective gear. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment and emergency procedures:
For non-emergency personnel: Keep all personal and avoid contact.

For emergency responders: Wear appropriate personal protective equipment. Avoid contact and ventilate area of the spill or leakage.

Protective equipment: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill.

Emergency procedures: Alert fire-fighting personnel, evacuate unprotected personal and animals.

Environmental precautions: Prevent spilled product from entering sewers, waterways or ground water. This product is classified to be harmful to aquatic organisms with long lasting effects in the aquatic environment. Any spillages or uncontrolled discharges into watercourses should be reported immediately to the police and the Department of Water/Environmental Affairs.

Methods and materials for containment and cleaning up:
Material for containment and cleaning up: Contain spilled product by diking area with sand or earth. Cover contained spill with an inert absorbent material such as sand, vermiculite, earth or other appropriate material. Place in suitable labelled containers and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spill material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. See section 13 for disposal considerations.

For small spills Clean and place in appropriate waste disposal container. Follow local and regional authority requirements.
For large spills Clean and place in appropriate waste disposal container. Follow local and regional authority requirements.

Reference to other sections: See section 7 for information on safe handling.
See section 8 for information on personal protection equipment.
See section 13 for information on disposal.

Additional information:
None.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:
Do not handle broken packages without proper portative equipment. Immediately clean up spills that occur during handling. Keep containers closed when not in use. Use with adequate ventilation. Avoid contact with skin and eyes. Do not inhale. Use suitable respiratory equipment. Wash hands and skin with soap after contact. Keep away from oxidizing agents and acids. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid breathing spray.

Protective measures: Observe directions on label and instructions for use.
Advice on general occupational hygiene: practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet, or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used. Do not eat, drink or smoke when handling this product. Use only outdoors or in a well-ventilated area. Avoid contamination of food, feed stuffs and drinking water.

Conditions for safe storage, including incompatibilities:
Keep under lock and key and out of reach of unauthorised persons, children, and animals. Store in original container, labelled container, tightly closed, in an isolated, dry cool and well- ventilated area. Do not expose to temperatures exceeding 50°C. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
Store product in a segregated and approved area.

Incompatible substances:
Store away from incompatible materials, heat, sun and source of ignition. Keep away from oxidizing agents and acids.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters:
Occupational exposure limits (OEL): None known

Biological exposure indices (BEI): None known.

Additional exposure limits under the conditions of use: None known.

Exposure control:

Appropriate engineering controls: Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

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. Where there is possibility that an employee's eyes may be exposed to this substance; the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Hand protection:

It is a good industrial hygiene practice to prevent skin contact. Use rubber gloves.

Eye/face protection:

Risk of contact: Wear approved safety goggles. Contact lenses is not protective eye devices.

Skin and body protection:

Employee must wear appropriate proactive impervious clothing: rubber boots, hat and equipment to prevent repeated or prolonged skin contact when working with chemicals. Do not wear leather clothing. Apron and long sleeves are recommended.

Environmental exposure controls: Environmental manager must be informed of all major spillages.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance (form):	Liquid.
Colour:	Clear, honey colour.
Odour:	Slight/mild chemical odour.
pH:	5.59 – 5.92
Melting point/range (°C):	Not known.
Boiling point/range (°C):	Not known.
Flash point (°C):	142°C
Upper/lower flammability/explosive limits:	Not known.
Vapour pressure (°C):	Not known.
Vapour density:	Not known.
Density/ relative density:	0.82 g/ml.
Solubility(ies):	Soluble.
n-Octanol/Water partition coefficient:	Not known.
Auto-ignition temperature:	Not known.
Decomposition temperature:	No decomposition under normal conditions.

Physical hazards:

Explosive properties: Not explosive.

Oxidising properties: Not known.

Other information:

Fat solubility (solvent-oil to be specified): Not known.

Bulk density: Not known.

Dissociation constant in water (p Ka): Not known.
Oxidation-reduction potential: Not known.

SECTION 10. STABILITY AND REACTIVITY

Reactivity:
The product is stable under normal warehouse conditions.
Chemical stability:
Avoid storage under extreme temperatures and conditions. Store below 50 °C, preferably below 30 °C, and not for prolonged periods in direct sunlight. Stable under normal storage conditions.
Possibility of hazardous reactions:
Not known.
Conditions to avoid:
Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. Incompatible material. Poor ventilation. Contamination. Moisture/high humidity.
Incompatible materials:
Not known.
Hazardous decomposition products:
No decomposition under normal conditions. Under thermal decomposition may emit irritating and toxic fumes.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Acute Toxicity	
Acute Oral LD_{50} (rat)	>5 000 mg/kg.
Acute Dermal LD_{50} (rats):	>2000 mg/kg.
Acute Inhalation LC_{50} 4 h 20 ºC (rats)	>5 mg/L.
Skin irritation/ corrosion (rabbits)	Not an irritant.
Eye damage / irritation (rabbits)	Not an irritant.
Respiratory or skin sensitization	Not a sensitizer.
Germ cell mutagenicity	Non mutagenic.
Carcinogenicity	Not carcinogenic.
Reproductive toxicity	Not classified as hazardous.
Specific Target Organ Toxicity STOT single exposure	Not classified as hazardous.
Specific Target Organ Toxicity STOT repeated exposure	Not classified as hazardous.
Aspiration hazard	Aspiration Toxicity, category 1

SECTION 12. ECOLOGICAL INFORMATION

Anticipated behaviour of the chemical product in the environment /possible environmental impact/ecotoxicity:

Acute Toxicity	
Birds: LD_{50} for bobwhite quail and mallard ducks Dietary LC_{50} (8 d) for bobwhite quail and mallard ducks	 Not known Not known
Fish: LC_{50} (96 h) for zebrafish LC_{50} (96 h) for carp	 Not known Not known

LC_{50} (96 h) for bluegill sunfish LC_{50} (96 h) for catfish	Not known Not known
Daphnia – toxic to Daphnia EC_{50} (48 h)	 Not known
Algae EC_{50} (72 h) for green algae	 Not known
Bees: LC_{50} (oral) LD_{50} (topical)	 Not known Not known
Worms Acute LC_{50} (14 d)	 Not known

Persistence and degradability: Not known.
Bioaccumulative potential: Not known.
Mobility in soil: Not known.

Other adverse effects: Not known.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

General Information: Do not discharge into drains, water courses or onto the ground. Discharge, treatment, or disposal may be subject to national, state, or local laws. Empty containers may contain product residues. Open dumping or burning is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.

Disposal Methods: Triple rinse empty pesticide containers or packages by triple rinsing before disposal. Quarter-fill the empty packaging with water, close and shake for 30 seconds. Empty the content by placing it upside down over disposal backet. Destroy the empty container by perforating and flattening and unused product as for toxic waste in accordance with local and /or national regulations. Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site. Do not pierce or burn, even after use.
Container: Since emptied containers retain product residue, follow label warnings even after container is emptied.
Product/ packaging disposal
Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number: 2902
UN proper shipping name: PESTICIDE, LIQUID, TOXIC, N.O.S.
UN Classification [transport hazard class(es): 6.1
Packing group (if applicable): III
Marine pollutant (Y/N): Yes

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:
Relevant information regarding authorization: Occupational Health and Safety Act 1993 Regulation for Hazardous Chemical Substances.
Relevant information regarding restrictions:
EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP] and EU directives 67/548/EEC or EC 1999/45/EC.
Other National regulations: National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 11014:2010 – Safety data sheet for chemical products, Content and order section.
SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.
National Environmental Management: Waste Act 59 of 2008.
Chemical Safety Assessment carried out? No.

SECTION 16. OTHER INFORMATION

Indication of changes:
GHS aligned.
Relevant classification and H statements (number and full text):
H304 May be fatal if swallowed and enters airway (aspiration hazard)
H410 Very toxic to aquatic life with long lasting effects

Training instructions:
Use as indicated on the label, special training may be required for application.

Further information:
This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to readers:
To the best of our knowledge, the information contained herein is accurate and is based on the present state of our knowledge and does not therefore guarantee specific properties. However, neither the above-named supplier nor any of its subsidiaries assumes any liability whatsoever for any accuracy or completeness of the information contained herein. Final determinations of suitability of any material are sole responsibility of the users, who must take responsibility for observing existing laws and regulations. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.