

Section 1 - Identification of Chemical Product and Company

S.C. Johnson & Son Pty. Ltd.
A.C.N. 000 021 009
160 Epping Road, Lane Cove, N.S.W. 2066. Australia
(Private Bag 22, Lane Cove, NSW 2066 Australia)
Telephone: (61)(02) 9428-9111
Fax: (61)(02) 9428-9169
Poisons Information Centre: (61) 131126

S.C. Johnson & Son Pty. Ltd.
21-23 Vestey Drive
Mt. Wellington, Auckland
New Zealand
Telephone (64)(09)573-2850
Fax: (64)(09) 573-2888
National Poisons: (64) 0800 764 766

Substance: Blend of insecticide ingredients presented as a metered aerosol.
Trade Name: **Raid[®] Automatic Insect Control System Commercial**
APVMA No.: 63083
ERMA No.: HSR07889
Products Applicable: 605466 Raid Automatic ICS Professional Primary 305g AU
605473 Raid Automatic ICS Professional Primary 305g NZ
605368 Raid Automatic ICS Professional Refill 305g AU
605356 Raid Automatic ICS Professional Refill 305g NZ
Product Use: Aerosol insecticide.
Creation Date: **May, 2008**
Revision Date: **June, 2009**

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as: N, Dangerous to the environment. Not classified as hazardous according to the criteria of ASCC.

Dangerous according to the Australian Dangerous Goods (ADG) Code.

Risk Phrases: R51. Toxic to aquatic organisms.

Safety Phrases: S61, S24/25. Avoid release to the environment. Refer to special instructions/Safety Data Sheets. Avoid contact with skin and eyes.

SUSDP Classification: None allocated.

ADG Classification: Class 2.1: Flammable gases.

UN Number: 1950, AEROSOLS

Emergency Overview

Physical Description & Colour: Clear, colourless liquid.

Odour: Mild odour.

Major Health Hazards: no significant risk factors have been found for this product.

Potential Health Effects

Inhalation:

Short Term Exposure: Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort. Intentional misuse by deliberately concentrating and inhaling contents of aerosol containers can be harmful or fatal.

Long Term Exposure: No data for health effects associated with long term inhalation.

Skin Contact:

Short Term Exposure: Major health effect from this product is misuse of the aerosol function. If sprayed continuously on skin or in eyes, it can cause frostbite.

Long Term Exposure: No data for health effects associated with long term skin exposure.

Eye Contact:

Short Term Exposure: If sprayed directly in the eye, this product will irritate. If spraying is prolonged, it may cause damage through frostbite.

MATERIAL SAFETY DATA SHEET

Long Term Exposure: No data for health effects associated with long term eye exposure.

Ingestion:

Short Term Exposure: Significant oral exposure is considered to be unlikely. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.

Long Term Exposure: No data for health effects associated with long term ingestion.

Carcinogen Status:

ASCC: No significant ingredient is classified as carcinogenic by ASCC.

NTP: No significant ingredient is classified as carcinogenic by NTP.

IARC: Piperonyl Butoxide is Class 3 - unclassifiable as to carcinogenicity to humans.

See the IARC website for further details. A web address has not been provided as addresses frequently change.

Section 3 - Composition/Information on Ingredients

| Ingredients | CAS No | Conc,% | TWA (mg/m³) | STEL (mg/m³) |
|--------------------|---------------|---------------|-------------------------------|--------------------------------|
| Alkanes, C3-4 | 68475-59-2 | 600g/kg | not set | not set |
| Pyrethrins | 8003-34-7 | 14g/kg | 5 | not set |
| Piperonyl butoxide | 51-03-6 | 45-60g/kg | not set | not set |
| Liquid hydrocarbon | 64742-48-9 | 300-400g/kg | not set | not set |

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The ASCC TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 - First Aid Measures

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

Inhalation: First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Skin Contact: Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until chemical is removed.

Eye Contact: No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.

Ingestion: If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Firefighters should take care and appropriate precautions. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: Suitable extinguishing media are carbon dioxide, dry chemical, foam, water fog. Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. There is a danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is full fire kit and breathing apparatus.

Flash point: Not available

Upper Flammability Limit: Not available

Lower Flammability Limit: Not available

Autoignition temperature: No data.

Flammability Class: No data.

MATERIAL SAFETY DATA SHEET

Section 6 - Accidental Release Measures

Accidental release: This product is sold in small packages, and the accidental release from one of these is not usually a cause for concern. For minor spills, clean up, rinsing to sewer and put empty container in garbage. Although no special protective clothing is normally necessary because of occasional minor contact with this product, it is good practice to wear impermeable gloves when handling chemical products. In the event of a major spill, prevent spillage from entering drains or water courses and call emergency services.

Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: Store in a cool, well ventilated area, and make sure that surrounding electrical devices and switches are suitable. Check containers and valves periodically for leaks. If you keep more than 25kg of flammable gases, you are probably required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

| ASCC Exposure Limits | TWA (mg/m ³) | STEL (mg/m ³) |
|----------------------|--------------------------|---------------------------|
| Pyrethrins | 5 | not set |

The ADI for Pyrethrins is set at 0.04mg/kg/day. The corresponding NOEL is set at 1985mg/kg/day.

The ADI for Piperonyl butoxide is set at 0.1mg/kg/day. The corresponding NOEL is set at 16mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, Dec 2006.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.

Eye Protection: Eye protection such as protective glasses or goggles is recommended when this product is being used.

Skin Protection: You should avoid contact even with mild skin irritants. Therefore you should wear suitable impervious elbow-length gloves and facial protection when handling this product. See below for suitable material types.

Protective Material Types: There is no specific recommendation for any particular protective material type.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Section 9 - Physical and Chemical Properties

| | |
|---|--|
| Physical Description & colour: | Clear, colourless liquid. |
| Odour: | Mild odour. |
| Boiling Point: | Not available. |
| Freezing/Melting Point: | No specific data. Liquid at normal temperatures. |
| Volatiles: | Gas: completely volatile. Liquid slowly volatile at 100°C, but completely volatile at higher temperatures. |
| Vapour Pressure: | No data. |
| Vapour Density: | No data. |
| Specific Gravity: | 0.61 |
| Water Solubility: | Negligible. |
| pH: | No data. |
| Volatility: | No data. |
| Odour Threshold: | No data. |

MATERIAL SAFETY DATA SHEET

Evaporation Rate: No data.
Coeff Oil/water Distribution: No data
Autoignition temp: No data.

Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Keep containers and surrounding areas well ventilated. Keep away from sources of sparks or ignition.

Incompatibilities: No particular Incompatibilities.

Fire Decomposition: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

Local Effects:

Target Organs: There is no data to hand indicating any particular target organs.

For Piperonyl Butoxide:

Carcinogenic Potential: Marginally higher incidences of benign liver tumours in mice were observed following lifetime high dose exposures to Piperonyl Butoxide. The significance of this observation is questionable and under review.

The doses at which tumours were observed greatly exceeded potential human exposure from labeled uses. Doses at which these effects were observed greatly exceeded human dietary intake. At anticipated dietary exposure levels, it is highly unlikely that this product would result in carcinogenic effects.

Classification of Hazardous Ingredients

| Ingredient | Risk Phrases |
|--|--------------|
| No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations. | |

Section 12 - Ecological Information

This product is toxic to aquatic organisms. Insufficient data to be sure of biodegradation status. This product is unlikely to accumulate in body tissues.

Summary of Effects: Piperonyl Butoxide is highly toxic to fish and aquatic organisms.

Eco-Acute Toxicity: Rainbow Trout 96-hour LC₅₀ 6.12 ppm

Bluegill Sunfish 96-hour LC₅₀ 5.37 ppm

Daphnia Magna 48-hour LC₅₀ 0.51 ppm

Honeybee, acute >25 µg/bee

Bobwhite Quail Oral LD₅₀ >2,250 mg/kg

Bobwhite quail 5 day dietary LC₅₀ >5,620 ppm

Mallard 5 day dietary LC₅₀ >5,620 ppm

Eco-Chronic Toxicity:

Fish (Fathead Minnow) Early life stage MATC >0.18 mg/L - <0.42 mg/L

Invertebrate (Daphnia Magna) life cycle MATC >30 µg/L - <47 µg/L

Environmental Fate: Not available.

Section 13 - Disposal Considerations

Disposal: You should not attempt to reclaim or recycle this product. We suggest that, subject to the regulations in your area, empty cans should be disposed in garbage. For disposal of commercial quantities, contact a specialist waste disposal company.

Section 14 - Transport Information

ADG Code: 1950, AEROSOLS

Hazchem Code: 2YE

Special Provisions: 63, 190, 277

Limited quantities: ADG 7 specifies a Limited Quantity value of 1000mL for this class of product.

MATERIAL SAFETY DATA SHEET

Dangerous Goods Class: Class 2.1: Flammable gases.

Packaging Group: Not set

Packaging Method: P003

Class 2.1 Flammable gases shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 3 (Flammable Liquids) (where both flammable liquids and flammable gases are in bulk), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), and 7 (Radioactive Substances). They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.2 (Non-flammable Non-Toxic gases), 3 (Flammable liquids except where both flammable liquids and flammable gases are in bulk), 6 (Toxic Substances), 8 (Corrosive Substances) 9 (Miscellaneous dangerous goods), Foodstuffs and foodstuff empties.

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredients: Pyrethrins, Liquid hydrocarbon, are mentioned in the SUSDP.

Section 16 - Other Information

This MSDS contains only safety-related information. For other data see product literature.

Acronyms:

| | |
|---------------------|---|
| ADG Code | Australian Code for the Transport of Dangerous Goods by Road and Rail (7 th edition) |
| AICS | Australian Inventory of Chemical Substances |
| ASCC | Office of the Australian Safety and Compensation Council |
| CAS number | Chemical Abstracts Service Registry Number |
| Hazchem Code | Emergency action code of numbers and letters that provide information to emergency services especially firefighters |
| IARC | International Agency for Research on Cancer |
| NOS | Not otherwise specified |
| NTP | National Toxicology Program (USA) |
| R-Phrase | Risk Phrase |
| SUSDP | Standard for the Uniform Scheduling of Drugs & Poisons |
| UN Number | United Nations Number |

THIS MSDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS MSDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This MSDS is prepared in accord with the ASCC document "National Code of Practice for the Preparation of Material Safety Data Sheets" 2nd Edition [NOHSC:2011(2003)]

MATERIAL SAFETY DATA SHEET