



**BAYER ADVANCED NATRIA ROSE & FLOWER READY-TO-USE**

Version 3 / USA  
102000022779

1/12  
Revision Date: 11/07/2013  
Print Date: 11/07/2013

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**Product identifier**

Trade name	BAYER ADVANCED NATRIA ROSE & FLOWER READY-TO-USE
Product code (UVP)	79674155
SDS Number	102000022779
EPA Registration No.	67702-15-72155

**Relevant identified uses of the substance or mixture and uses advised against**

Use	Insecticide
Restrictions on use	See product label for restrictions.

**Information on manufacturer**

Bayer Environmental Science  
2 T.W. Alexander Drive  
Research Triangle PK, NC 27709  
United States

**Emergency telephone no.**

All Emergencies, 24hr/ 7 days 1-800-334-7577 (24 hours/day)

**Product Information Telephone No.**

1-800-331-2867

**SDS Information or Request** SDSINFO.BCS-NA@bayer.com

**SECTION 2: HAZARDS IDENTIFICATION**

**Classification in accordance with regulation HCS 29CFR §1910.1200**

Flammable liquids : Category 3



**Signal word:** Warning

**Hazard statements**

Flammable liquid and vapour.

**Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Wear protective gloves and eye/face protection.



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IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
In case of fire: Use sand, dry chemical or alcohol-resistant foam for extinction.  
Store in a well-ventilated place.  
Keep cool.  
Dispose of contents/container in accordance with local regulation.

**Other hazards**

No other hazards known.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Hazardous Component Name	CAS-No.	Average % by Weight
Pyrethrins including cinerins	8003-34-7	0.01
Sulfur	7704-34-9	0.20
Propan-2-ol	67-63-0	5.00

**SECTION 4: FIRST AID MEASURES**

**Description of first aid measures**

<b>General advice</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
<b>Inhalation</b>	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
<b>Skin contact</b>	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
<b>Eye contact</b>	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** To date no symptoms are known.

**Indication of any immediate medical attention and special treatment needed**



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<b>Treatment</b>	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.
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**SECTION 5: FIREFIGHTING MEASURES**

**Extinguishing media**

<b>Suitable</b>	Water, Carbon dioxide (CO <sub>2</sub> ), Foam
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<b>Unsuitable</b>	None known.
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<b>Special hazards arising from the substance or mixture</b>	Dangerous gases are evolved in the event of a fire.
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**Advice for firefighters**

<b>Special protective equipment for fire-fighters</b>	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
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<b>Further information</b>	Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.
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<b>Flash point</b>	54 °C
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<b>Autoignition temperature</b>	no data available
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<b>Lower explosion limit</b>	no data available
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<b>Upper explosion limit</b>	no data available
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<b>Explosivity</b>	not applicable
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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

<b>Precautions</b>	Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.
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**Methods and materials for containment and cleaning up**

<b>Methods for cleaning up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.
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<b>Additional advice</b>	Use personal protective equipment. Material can create slippery conditions. Do not allow to enter soil, waterways or waste water canal.
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**Reference to other sections** Information regarding safe handling, see section 7.  
Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.

**SECTION 7: HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** Ensure adequate ventilation. Handle and open container in a manner as to prevent spillage.

**Advice on protection against fire and explosion** Keep away from heat and sources of ignition.

**Hygiene measures** Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

**Conditions for safe storage, including any incompatibilities**

**Requirements for storage areas and containers** Store in original container. Store at room temperature. Protect from freezing.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Pyrethrins including cinerins	8003-34-7	5 mg/m3 (TWA)		OES BCS*
Pyrethrins including cinerins	8003-34-7	5 mg/m3 (TWA)	02 2012	ACGIH
Pyrethrins including cinerins	8003-34-7	5 mg/m3 (REL)	2010	NIOSH
Pyrethrins including cinerins	8003-34-7	5 mg/m3 (PEL)	02 2006	OSHA Z1
Pyrethrins including cinerins	8003-34-7	5 mg/m3 (TWA)	1989	OSHA Z1A
Pyrethrins including cinerins	8003-34-7	5 mg/m3 (TWA)	06 2008	TN OEL
Pyrethrins including cinerins	8003-34-7	50 ug/m3 (ST ESL)	07 2011	TX ESL
Pyrethrins including cinerins	8003-34-7	5 ug/m3 (AN ESL)	07 2011	TX ESL
Pyrethrins including cinerins	8003-34-7	5 mg/m3 (TWA PEL)	08 2010	US CA OEL
Sulfur	7704-34-9	10 mg/m3 (TWA)		OES BCS*



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Sulfur	7704-34-9	5 ug/m3 (AN ESL)	03 2012	TX ESL
Sulfur	7704-34-9	50 ug/m3 (ST ESL)	03 2012	TX ESL
Propan-2-ol	67-63-0	200 ppm (SK-ABS)		OES BCS*
Propan-2-ol	67-63-0	400 ppm (STEL)	02 2012	ACGIH
Propan-2-ol	67-63-0	200 ppm (TWA)	02 2012	ACGIH
Propan-2-ol	67-63-0	1,225 mg/m3 / 500 ppm (STEL)	2010	NIOSH
Propan-2-ol	67-63-0	980 mg/m3 / 400 ppm (REL)	2010	NIOSH
Propan-2-ol	67-63-0	980 mg/m3 / 400 ppm (PEL)	02 2006	OSHA Z1
Propan-2-ol	67-63-0	980 mg/m3 / 400 ppm (TWA)	1989	OSHA Z1A
Propan-2-ol	67-63-0	1,225 mg/m3 / 500 ppm (STEL)	1989	OSHA Z1A
Propan-2-ol	67-63-0	1,225 mg/m3 / 500 ppm (STEL)	06 2008	TN OEL
Propan-2-ol	67-63-0	980 mg/m3 / 400 ppm (TWA)	06 2008	TN OEL
Propan-2-ol	67-63-0	492 ug/m3 (AN ESL)	07 2011	TX ESL
Propan-2-ol	67-63-0	2000 ppb (ST ESL)	07 2011	TX ESL
Propan-2-ol	67-63-0	4920 ug/m3 (ST ESL)	07 2011	TX ESL
Propan-2-ol	67-63-0	200 ppb (AN ESL)	07 2011	TX ESL
Propan-2-ol	67-63-0	1,225 mg/m3 / 500 ppm (STEL)	08 2010	US CA OEL
Propan-2-ol	67-63-0	980 mg/m3 / 400 ppm (TWA PEL)	08 2010	US CA OEL

\*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

**Exposure controls**

**Personal protective equipment**

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

**Respiratory protection**

When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.



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<b>Hand protection</b>	Chemical resistant nitrile rubber gloves
<b>Eye protection</b>	Tightly fitting safety goggles
<b>Skin and body protection</b>	Wear long-sleeved shirt and long pants and shoes plus socks.
<b>General protective measures</b>	<p>There are no known hazards associated with this product when used according to the label directions. The following guidelines should be followed.</p> <p>Do not allow children or pets to enter the treated area until it has dried.</p> <p>Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water.</p> <p>Keep and wash PPE separately from other laundry.</p>

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	yellow
<b>Physical State</b>	liquid suspension
<b>Odor</b>	slight alcoholic
<b>Odour Threshold</b>	no data available
<b>pH</b>	4.8 - 5.2 (100 %)
<b>Vapor Pressure</b>	no data available
<b>Vapor Density (Air = 1)</b>	no data available
<b>Density</b>	ca. 0.99 g/cm <sup>3</sup> at 25 °C
<b>Evaporation rate</b>	no data available
<b>Boiling Point</b>	no data available
<b>Melting / Freezing Point</b>	no data available
<b>Water solubility</b>	miscible in all proportions
<b>Minimum Ignition Energy</b>	not applicable



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<b>Decomposition temperature</b>	no data available
<b>Partition coefficient: n-octanol/water</b>	no data available
<b>Viscosity</b>	200 - 500 mPa.s
<b>Flash point</b>	54 °C
<b>Autoignition temperature</b>	no data available
<b>Lower explosion limit</b>	no data available
<b>Upper explosion limit</b>	no data available
<b>Explosivity</b>	not applicable

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**SECTION 10: STABILITY AND REACTIVITY**

**Reactivity**

<b>Thermal decomposition</b>	no data available
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No hazardous reactions when stored and handled according to prescribed instructions.
<b>Conditions to avoid</b>	Elevated temperatures
<b>Incompatible materials</b>	no data available
<b>Hazardous decomposition products</b>	Carbon dioxide (CO <sub>2</sub> ) Carbon monoxide Sulphur oxides Hydrogen sulfide

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**SECTION 11: TOXICOLOGICAL INFORMATION**

<b>Exposure routes</b>	Eye contact, Skin contact, Inhalation, Ingestion
<b>Immediate Effects</b>	



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<b>Eye</b>	Moderate eye irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Inhalation</b>	May be harmful if inhaled.

**Information on toxicological effects**

<b>Acute oral toxicity</b>	LD50 > 5,000 mg/kg
<b>Acute inhalation toxicity</b>	no data available
<b>Acute dermal toxicity</b>	LD50 > 5,000 mg/kg
<b>Skin irritation</b>	no data available
<b>Eye irritation</b>	no data available
<b>Sensitisation</b>	no data available

**Assessment repeated dose toxicity**

Pyrethrin did not cause specific target organ toxicity in experimental animal studies.  
Sulfur did not cause specific target organ toxicity in experimental animal studies.

**Assessment Mutagenicity**

Pyrethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.  
Sulfur was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

**Assessment Carcinogenicity**

Pyrethrin was not carcinogenic in lifetime feeding studies in rats and mice.  
Sulfur is not considered carcinogenic.

**ACGIH**

Pyrethrins including cinerins	8003-34-7	Group A4
Propan-2-ol	67-63-0	Group A4

**NTP**

None.

**IARC**

None.

**OSHA**

None.

**Assessment toxicity to reproduction**

Pyrethrin did not cause reproductive toxicity in a two-generation study in rats.  
Sulfur is not considered a reproductive toxicant at non-maternally toxic dose levels.

**Assessment developmental toxicity**





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Pyrethrin did not cause developmental toxicity in rats and rabbits.  
Sulfur is not considered a developmental toxicant.

**Further information**

Only acute toxicity studies have been performed on the formulated product.  
The non-acute information pertains to the active ingredient(s).

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**SECTION 12: ECOLOGICAL INFORMATION**

<b>Biodegradability</b>	Pyrethrin: not rapidly biodegradable  Sulfur: not rapidly biodegradable
<b>Koc</b>	Pyrethrin: Koc:12472 - 74175  Sulfur: Koc:1950
<b>Bioaccumulation</b>	Pyrethrin: Bioconcentration factor (BCF) 471 Does not bioaccumulate. Sulfur: Does not bioaccumulate.
<b>Mobility in soil</b>	Pyrethrin: Immobile in soil  Sulfur: Slightly mobile in soils
<b>Environmental precautions</b>	Do not allow to get into surface water, drains and ground water. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.

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**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

<b>Product</b>	It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines. Never place unused product down any indoor or outdoor drain.
<b>Contaminated packaging</b>	Consult state and local regulations regarding the proper disposal of container. Follow advice on product label and/or leaflet.



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**RCRA Information**

Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

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**SECTION 14: TRANSPORT INFORMATION**

**49CFR**

NA-Number	<b>1993</b>
Packaging group	III
Proper shipping name	COMBUSTIBLE LIQUID, N.O.S. (ISOPROPANOL, PYRETHRINS)
RQ	Reportable Quantity is reached with 10,000 lb of product.

**IMDG**

UN number	<b>1993</b>
Class	3
Packaging group	III
Marine pollutant	NO
Proper shipping name	FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL)

**IATA**

UN number	<b>1993</b>
Class	3
Packaging group	III
Environm. Hazardous Mark	NO
Proper shipping name	FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL )

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

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**SECTION 15: REGULATORY INFORMATION**

**EPA Registration No.** 67702-15-72155

**US Federal Regulations**

**TSCA list**

Sulfur	7704-34-9
Propan-2-ol	67-63-0

**US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)**

None.

**SARA Title III - Section 302 - Notification and Information**

None.

**SARA Title III - Section 313 - Toxic Chemical Release Reporting**



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None.

**US States Regulatory Reporting**

**CA Prop65**

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

**US State Right-To-Know Ingredients**

Pyrethrins including cinerins	8003-34-7	CA, CT, MN, RI
Sulfur	7704-34-9	CA, CT

**Canadian Regulations**

**Canadian Domestic Substance List**

Pyrethrins including cinerins	8003-34-7
Sulfur	7704-34-9
Propan-2-ol	67-63-0

**Environmental**

**CERCLA**

Pyrethrins including cinerins	8003-34-7	1 lbs
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**Clean Water Section 307 Priority Pollutants**

None.

**Safe Drinking Water Act Maximum Contaminant Levels**

None.

**International Regulations**

**European Inventory of Existing Commercial Substances (EINECS)**

Pyrethrins including cinerins	8003-34-7
Sulfur	7704-34-9
Propan-2-ol	67-63-0

**EPA/FIFRA Information:**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

**Signal word:** Caution!

**Hazard statements:** Moderate eye irritation.  
Avoid contact with skin, eyes and clothing.  
Avoid inhalation of vapour or mist.  
Wash thoroughly with soap and water after handling.

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**SECTION 16: OTHER INFORMATION**

Bayer Environmental Science  
SAFETY DATA SHEET



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NFPA 704 (National Fire Protection Association):

Health - 1      Flammability - 2      Instability - 0      Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1      Flammability - 2      Physical Hazard - 0      PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

Revision Date: 11/07/2013

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.