



**BAYER ADVANCED NATRIA INSECT, DISEASE AND MITE
CONTROL READY-TO-SPRAY**

Version 2.0 / USA
102000027064

1/11
Revision Date: 05/22/2014
Print Date: 05/23/2014

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

Product identifier

Trade name BAYER ADVANCED NATRIA INSECT, DISEASE AND MITE
CONTROL READY-TO-SPRAY

Product code (UVP) 80868464

SDS Number 102000027064

EPA Registration No. 67702-17-72155

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

Use Fungicide, 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
Number (24hr/ 7 days)** 1-800-334-7577 (24 hours/day)

**Product Information
Telephone Number** 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.



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Use only non-sparking tools.
Take precautionary measures against static discharge.
Wear protective gloves and eye protection/face protection.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
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
Sulfur	7704-34-9	10.00
Pyrethrins including cinerins	8003-34-7	0.25
1,2-Propanediol	57-55-6	2.00
Propan-2-ol	67-63-0	5.00

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	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.
Skin contact	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.
Eye contact	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.
Ingestion	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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Treatment	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

Suitable	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
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Unsuitable	None known.
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Special hazards arising from the substance or mixture	Dangerous gases are evolved in the event of a fire.
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Advice for firefighters

Special protective equipment for fire-fighters	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
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Further information	Evacuate personnel to safe areas. Keep out of smoke. Fight fire from upwind position. Avoid contact with spilled product or contaminated surfaces. Cool closed containers exposed to fire with water spray.
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Do not allow run-off from fire fighting to enter drains or water courses.

Flash point	52 °C
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Explosivity	not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions	Isolate hazard area. Keep unauthorized people away. Remove all sources of ignition.
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Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

Methods and materials for containment and cleaning up

Methods for cleaning up	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. Decontaminate tools and equipment following cleanup.
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Additional advice	Do not allow to enter soil, waterways or waste water canal.
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	Handle and open container in a manner as to prevent spillage. Avoid dust formation. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.
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. Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.
Conditions for safe storage, including any incompatibilities	
Requirements for storage areas and containers	Store in original container. Store at room temperature. Protect from freezing.
Advice on common storage	Keep away from combustible material.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Sulfur (Particulate.)	7704-34-9	5ug/m3 (AN ESL)	02 2013	TX ESL
Sulfur (Particulate.)	7704-34-9	50ug/m3 (ST ESL)	02 2013	TX ESL
Sulfur	7704-34-9	10 mg/m3 (TWA)		OES BCS*
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



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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	50ug/m3 (ST ESL)	07 2011	TX ESL
Pyrethrins including cinerins	8003-34-7	5ug/m3 (AN ESL)	07 2011	TX ESL
Pyrethrins including cinerins	8003-34-7	5 mg/m3 (TWA PEL)	08 2010	US CA OEL
1,2-Propanediol (Vapor.)	57-55-6	1000ug/m3 (ST ESL)	02 2013	TX ESL
1,2-Propanediol (Vapor.)	57-55-6	50ppb (AN ESL)	02 2013	TX ESL
1,2-Propanediol (Vapor.)	57-55-6	500ppb (ST ESL)	02 2013	TX ESL
1,2-Propanediol (Vapor.)	57-55-6	100ug/m3 (AN ESL)	02 2013	TX ESL
1,2-Propanediol (Aerosol.)	57-55-6	10 mg/m3 (TWA)	2010	WEEL
Propan-2-ol	67-63-0	1,225 mg/m3/500 ppm (STEL)	1998	JO TLV
Propan-2-ol	67-63-0	980 mg/m3/400 ppm (TWA)	1998	JO TLV
Propan-2-ol	67-63-0	200 ppm (TWA)	02 2012	ACGIH
Propan-2-ol	67-63-0	400 ppm (STEL)	02 2012	ACGIH
Propan-2-ol	67-63-0	980 mg/m3/400 ppm (REL)	2010	NIOSH
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 (PEL)	02 2006	OSHA Z1
Propan-2-ol	67-63-0	1,225 mg/m3/500 ppm (STEL)	1989	OSHA Z1A
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)	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	4920ug/m3 (ST ESL)	07 2011	TX ESL
Propan-2-ol	67-63-0	200ppb (AN ESL)	07 2011	TX ESL
Propan-2-ol	67-63-0	2000ppb (ST ESL)	07 2011	TX ESL



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Propan-2-ol	67-63-0	492ug/m3 (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
Propan-2-ol	67-63-0	200 ppm (SK-ABS)		OES BCS*

*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.
Hand protection	Chemical resistant nitrile rubber gloves
Eye protection	Chemical resistant goggles must be worn.
Skin and body protection	Wear long-sleeved shirt and long pants and shoes plus socks.
General protective measures	Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	yellow
Physical State	opaque suspension
Odor	sulphurous slight alcoholic
Odour Threshold	no data available
pH	ca. 4.25
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Density	ca. 1.04 g/cm ³
Evaporation rate	no data available



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Boiling Point	no data available
Melting / Freezing Point	no data available
Water solubility	miscible in all proportions
Solubility in other solvents	no data available
Minimum Ignition Energy	not applicable
Decomposition temperature	no data available
Partition coefficient: n-octanol/water	no data available
Viscosity	450 mPa.s
Flash point	52 °C
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Explosivity	not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition	no data available
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. freezing
Incompatible materials	no data available
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Eye contact, Skin contact, Inhalation, Ingestion
Immediate Effects	
Eye	Moderate eye irritation may occur.

Information on toxicological effects



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Acute oral toxicity LD50 > 5,000 mg/kg

Acute inhalation toxicity
no data available

Acute dermal toxicity LD50 > 5,000 mg/kg

Skin irritation
no data available

Eye irritation
no data available

Sensitisation
no data available

Assessment repeated dose toxicity

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

Assessment Mutagenicity

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

Assessment Carcinogenicity

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

ACGIH

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

NTP

None.

IARC

Propan-2-ol	67-63-0	Overall evaluation: 3
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OSHA

None.

Assessment toxicity to reproduction

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

Assessment developmental toxicity

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

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

Biodegradability	Sulfur: ; not rapidly biodegradable Pyrethrin: ; not rapidly biodegradable
Koc	Sulfur: Koc: 1950 Pyrethrin: Koc: 12472 - 74175
Bioaccumulation	Sulfur: ; Does not bioaccumulate. Pyrethrin: Bioconcentration factor (BCF) 471; Does not bioaccumulate.
Mobility in soil	Sulfur: Slightly mobile in soils Pyrethrin: Immobile in soil
Environmental precautions	Do not allow to get into surface water, drains and ground water. Do not apply when weather conditions favor runoff or drift. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods	
Product	Do not contaminate water, food, or feed by disposal. Dispose in accordance with all local, state/provincial and federal regulations. Never place unused product down any indoor or outdoor drain. Follow advice on product label and/or leaflet.
Contaminated packaging	Do not re-use empty containers. Triple rinse containers. Do not re-use empty packagings. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.
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.

SECTION 14: TRANSPORT INFORMATION

49CFR	
NA-Number	1993
Packaging group	III
Proper shipping name	COMBUSTIBLE LIQUID, N.O.S. (ISOPROPANOL, PYRETHRINS)



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RQ Reportable Quantity is reached with 400 lb of product.

IMDG

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

IATA

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

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.

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 67702-17-72155

US Federal Regulations

TSCA list

Sulfur	7704-34-9
1,2-Propanediol	57-55-6
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

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

Sulfur	7704-34-9	CA, CT
Pyrethrins including cinerins	8003-34-7	CA, CT, MN, RI
1,2-Propanediol	57-55-6	MN
Propan-2-ol	67-63-0	CA, CT, MN, NJ, RI



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Canadian Regulations

Canadian Domestic Substance List

Pyrethrins including cinerins	8003-34-7
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
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 eyes. Avoid contact with skin and clothing.

SECTION 16: OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1	Flammability - 1	Instability - 1	Others - none
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HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1	Flammability - 1	Physical Hazard - 1	PPE -
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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: 05/22/2014

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