BAYER ADVANCED 12 MONTH TREE & SHRUB PROTECT & FEED READY-TO-USE GRANULES

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

Product identifier

Trade name	BAYER ADVANCED 12 MONTH TREE & SHRUB PROTECT & FEED READY-TO-USE GRANULES
Product code (UVP)	05977907
SDS Number	102000014562
EPA Registration No.	72155-72

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

Use	Insecticide, Fertilizer
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.

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
This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.
Other hazards
No particular hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Imidacloprid	138261-41-3	1.1

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

Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable	Water spray, Dry chemical, Carbon dioxide (CO2), Foam
Unsuitable	None known.
Special hazards arising from the substance or mixture	In the event of fire the following may be released:, Oxides of phosphorus, Carbon dioxide (CO2), Nitrogen oxides (NOx), Ammonia, Sulphur oxides

Advice for firefighters

Special protective equipment for fire-fighters	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
Further information	Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Extinguishing measures to suit surroundings. Do not allow run-off from fire fighting to enter drains

	or water courses.
Flash point	not applicable
Autoignition temperature	no data available
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Explosivity	no data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions	Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning up	Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.
Additional advice	Use personal protective equipment. 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. Use only in area provided with appropriate exhaust ventilation.
Advice on protection against fire and explosion	Keep away from heat and sources of ignition.
Hygiene measures	Remove Personal Protective Equipment (PPE) immediately after handling this product. 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 a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Imidacloprid	138261-41-3	50ug/m3 (ST ESL)	07 2011	TX ESL
Imidacloprid	138261-41-3	5ug/m3 (AN ESL)	07 2011	TX ESL
Imidacloprid	138261-41-3	0.7 mg/m3 (TWA)		OES BCS*
Magnesium carbonate (Total)	546-93-0	10 mg/m3 (REL)	2010	NIOSH
Magnesium carbonate (Respirable.)	546-93-0	5 mg/m3 (REL)	2010	NIOSH
Magnesium carbonate (Total dust.)	546-93-0	15 mg/m3 (PEL)	02 2006	OSHA Z1
Magnesium carbonate (Respirable fraction.)	546-93-0	5 mg/m3 (PEL)	02 2006	OSHA Z1
Magnesium carbonate (Respirable fraction.)	546-93-0	5 mg/m3 (TWA)	1989	OSHA Z1A
Magnesium carbonate (Total dust.)	546-93-0	15 mg/m3 (TWA)	1989	OSHA Z1A
Magnesium carbonate (Respirable fraction.)	546-93-0	5 mg/m3 (TWA)	06 2008	TN OEL
Magnesium carbonate (Total dust.)	546-93-0	15 mg/m3 (TWA)	06 2008	TN OEL
Magnesium carbonate (Particulate.)	546-93-0	5ug/m3 (AN ESL)	02 2013	TX ESL
Magnesium carbonate (Particulate.)	546-93-0	50ug/m3 (ST ESL)	02 2013	TX ESL
Calcium lignosulfonate (Particulate.)	8061-52-7	50ug/m3 (ST ESL)	02 2013	TX ESL
Calcium lignosulfonate (Particulate.)	8061-52-7	5ug/m3 (AN ESL)	02 2013	TX ESL
Cellulose	9004-34-6	10 mg/m3 (TWA)	02 2012	ACGIH
Cellulose (Respirable.)	9004-34-6	5 mg/m3 (REL)	2010	NIOSH
Cellulose (Total)	9004-34-6	10 mg/m3 (REL)	2010	NIOSH

Cellulose (Respirable fraction.)	9004-34-6	5 mg/m3 (PEL)	02 2006	OSHA Z1
Cellulose (Total dust.)	9004-34-6	15 mg/m3 (PEL)	02 2006	OSHA Z1
Cellulose (Respirable fraction.)	9004-34-6	5 mg/m3 (TWA)	1989	OSHA Z1A
Cellulose (Total dust.)	9004-34-6	15 mg/m3 (TWA)	1989	OSHA Z1A
Cellulose (Respirable fraction.)	9004-34-6	5 mg/m3 (TWA)	06 2008	TN OEL
Cellulose (Total dust.)	9004-34-6	15 mg/m3 (TWA)	06 2008	TN OEL
Cellulose (Particulate.)	9004-34-6	5ug/m3 (AN ESL)	02 2013	TX ESL
Cellulose (Particulate.)	9004-34-6	50ug/m3 (ST ESL)	02 2013	TX ESL

*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 Safety glasses with side-shields

Skin and body protection Wear long-sleeved shirt and long pants and shoes plus socks.

General protective measures Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Do not allow children or pets to enter the treated area until granules have been watered into the soil and the grass or soil is dry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance yellow to brown

Physical State granular

Odor woody

Odour Threshold no data available

pH ca. 6.0 - 7.5 at 10 %
aqueous suspension

Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Bulk density	ca. 55 - 65 lb/ft³
Evapouration rate	not applicable
Boiling Point	not applicable
Melting / Freezing Point	not applicable
Water solubility	soluble
Minimum Ignition Energy	not applicable
Decomposition temperature	no data available
Partition coefficient: n-octanol/water	not applicable
Viscosity	not applicable
Flash point	not applicable
Autoignition temperature	no data available
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Explosivity	no data available

SECTION 10: STABILITY AND REACTIVITY

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

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Ingestion, Eye contact, Skin Absorption
Immediate Effects	
Eye	Causes eye irritation.
Skin	Harmful if absorbed through skin.
Ingestion	Harmful if swallowed.

Information on toxicological effects

Acute oral toxicity	LD50 (male/female combined rat) > 4,820 mg/kg
Acute inhalation toxicity	LC50 (male/female combined rat) > 5.1 mg/l Exposure time: 4 h Determined in the form of dust. (actual)
Acute dermal toxicity	LD50 (male/female combined rabbit) > 2,000 mg/kg
Skin irritation	No skin irritation (rabbit)
Eye irritation	Mild eye irritation. (rabbit)
Sensitisation	Non-sensitizing. (guinea pig)

Assessment repeated dose toxicity

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

Assessment mutagenicity

Imidacloprid was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Imidacloprid was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

Assessment toxicity to reproduction

Imidacloprid caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Imidacloprid is related to parental toxicity.

Assessment developmental toxicity

Imidacloprid caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Imidacloprid are related to maternal toxicity.

Further information

Acute toxicity studies have been bridged from a similar formulation(s).
The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) 211 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient imidacloprid.
Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) 85 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient imidacloprid. LC50 (Chironomus riparius (non-biting midge)) 0.0552 mg/l Exposure time: 24 h The value mentioned relates to the active ingredient imidacloprid. EC10 (Chironomus riparius (non-biting midge)) 2,09 µg/l Exposure time: 28 d The value mentioned relates to the active ingredient imidacloprid.
Toxicity to aquatic plants	EC50 (Desmodesmus subspicatus) > 10 mg/l Growth rate; Exposure time: 72 h The value mentioned relates to the active ingredient imidacloprid.
Biodegradability	Imidacloprid: ; not rapidly biodegradable
Koc	Imidacloprid: Koc: 225
Bioaccumulation	Imidacloprid: ; Does not bioaccumulate.
Mobility in soil	Imidacloprid: Moderately mobile in soils
Environmental precautions	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.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	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.
Contaminated packaging	Do not re-use empty containers. Place empty container in trash. 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 Not dangerous goods / not hazardous material

IMDG

UN number	**3077**
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (IMIDACLOPRID MIXTURE)

IATA

UN number	**3077**
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (IMIDACLOPRID MIXTURE)

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. 72155-72
US Federal Regulations
TSCA list
None.

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
None.

Canadian Regulations
Canadian Domestic Substance List
None.

Environmental
CERCLA
None.
Clean Water Section 307 Priority Pollutants
None.
Safe Drinking Water Act Maximum Contaminant Levels
None.

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:	Harmful if swallowed or absorbed through skin. Moderate eye irritation. Avoid contact with skin, eyes and clothing. Wash thoroughly with soap and water after handling.

SECTION 16: OTHER INFORMATION

BAYER ADVANCED 12 MONTH TREE & SHRUB PROTECT & FEED READY-TO-USE GRANULES

NFPA 704 (National Fire Protection Association):

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

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

Health - 1	Flammability - 1	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) Reviewed and updated for general editorial purposes.

Revision Date: 03/06/2015

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