Atrazine

• Intended Use

For the detection and quantitation of atrazine and related triazines in water (groundwater, surface water, well water). For soil, crop, and food use contact the company for application bulletins and/or specific matrix validation guidelines.

• Principle

The Abraxis Atrazine Kit applies the principles of enzyme linked immunosorbent assay (ELISA) to the determination of atrazine and related triazines. The sample to be tested is added, along with an enzyme conjugate, to a disposable test tube, followed by paramagnetic particles attached with antibodies specific to triazines. At this point a competitive reaction occurs between the triazine which may be be in the sample and the enzyme labeled atrazine for the antibody binding sites on the magnetic particles. The reaction is allowed to continue for fifteen (15) minutes. At the end of the incubation period, a magnetic field is applied to hold in the test tube the para-magnetic particles (with atrazine and labeled atrazine bound to the antibodies on the particles, in proportion to their original concentration), and allow the unbound reagents to be decanted. After decanting, the particles are washed with Washing Solution.

The presence of atrazine is detected by adding the "Color Solution", which contains the enzyme substrate (hydrogen peroxide) and the chromogen (3,3',5,5'-tetramethylbenzidine). The enzyme-labeled atrazine bound to the atrazine antibody catalyzes the conversion of the substrate/ chromogen mixture to a colored product. After an incubation period, the reaction is stopped and stabilized by the addition of a diluted acid (Stopping Solution). Since the labeled atrazine (conjugate) was in competition with the unlabeled atrazine (sample) for the antibody sites, **the color developed is inversely proportional to the concentration of atrazine in the sample**.

• Reagents

The Abraxis Atrazine Kit contains the following items:

1. Atrazine Antibody Coupled Paramagnetic Particles
Atrazine antibody (rabbit anti-atrazine) covalently bound to paramagnetic particles suspended in a buffered soution with preservative and stabilizers.
100 test kit: one 65 mL vial

2. Atrazine Enzyme Conjugate
Horseradish peroxidase (HRP) labeled atrazine analog diluted in a buffered solution with preservative and stabilizers.
100 test kit: one 35 mL vial

3. Atrazine Standards
Three concentrations (0.1, 1.0, 5.0 ppb) of atrazine standards in distilled water with preservative and stabilizers. Each vial contains 2.0 mL.

4. Control
A concentration (approximately 3 ppb) of atrazine in distilled water with preservative and stabilizers. A 2.0 mL volume is supplied in one vial.

5. Diluent/Zero Standard
Distilled water with preservative and stabilizers without any detectable atrazine.
100 test kit: one 35 mL vial

6. Color Solution
A solution of hydrogen peroxide and 3,3',5,5'-tetramethylbenzidine in an organic base.
100 test kit: one 65 mL vial

7. Stopping Solution
A solution of diluted acid.
100 test kit: one 60 mL vial

8. Washing Solution
Preserved deionized water.
100 test kit: one 250 mL vial

9. Test Tubes
Polystyrene tubes (36) are packaged in a box.
100 test kit: three 36 tube boxes

• Reagent Storage and Stability

Store all reagents at 2-8°C. Do not freeze. Reagents may be used until the expiration date on the box. *The test tubes and Washing Solution require no special storage condition and may be stored separately from the reagents to conserve refrigerator space.*

Consult state, local and federal regulations for proper disposal of all reagents.

• Materials Required but Not Provided

In addition to the reagents provided, the following items are essential for the performance of the test:

Pipets*	Precision pipets capable of delivering 250, and 500 uL and a 1.0 mL repeating pipet.
Vortex Mixer*	Thermolyne Maxi Mix, Scientific Industries Vortex Genie, or equivalent

Magnetic Separation System*

Photometer* capable of readings at 450 nm

* Please contact Abraxis for supplier information.

• Sample Information

This procedure is recommended fo use with water samples. Other samples may require modifications to the procedure and should be thoroughly validated.

Samples containing gross particulate matter should be filtered (e.g. 0.2 um Anotop™ 25 Plus, Whatman, Inc.) to remove particles.

Samples which have been preserved with monochloroacetic acid or other acids, should be neutralized with strong base e.g. 6N NaOH, prior to assay.

If the atrazine concentration of a sample exceeds 5 ppb, the sample is subject to repeat testing using a diluted sample. A ten-fold or greater dilution of the sample is recommended with an appropriate amount of Diluent/Zero Standard or Sample Diluent. For example, in a separate test tube make a ten-fold dilution by adding 100 uL of the sample to 900 uL of Diluent/Zero Standard. Mix thoroughly before assaying. Perform the assay according to the Assay Procedure and obtain final results by multiplying the value obtain by the dilution factor e.g. 10.

• Reagent Preparation

All reagents must be allowed to come to room temperature. The antibody coupled paramagnetic particles should be mixed thoroughly before use.

• Procedural Notes and Precautions

As with all immunoassays, a consistent technique is the key to optimal performance. To obtain the greatest precision, be sure to treat each tube in an identical manner.

Add reagents directly to the bottom of the tube while **avoiding contact between the reagents and the pipet tip**. This will help assure consistent quantities of reagent in the test mixture.

Avoid cross-contaminations and carryover of reagents by using clean pipets for each sample addition and by avoiding contact between reagent droplets on the tubes and pipet tips.

Avoid foam formation during vortexing.

The magnetic separation system consists of two parts: an upper rack which will securely hold the test tubes and a lower separator which contains the magnets used to attract the antibody coupled paramagnetic particles. During incubations the upper rack is removed from the lower separator so that the paramagnetic particles remain suspended during the incubation. **For separation steps, the rack and the separator are combined to pull the paramagnetic particles to the sides of the tubes**.

To obtain optimum assay precision, it is important to perform the separation steps carefully and consistently. Decant the rack by slowly inverting away from the operator using a smooth turning action so the liquid flows consistently along only one side of the test tube. While still inverted, place the rack on an absorbent pad and allow to drain. Lifting the rack and replacing gently onto the pad several times will ensure complete removal of the liquid from the rim of the tube. Do not bang the rack.

Mix the antibody coupled paramagnetic particles just prior to pipetting.

Do not use any reagents beyond their stated shelf life.

Avoid contact of Stopping Solution (diluted sulfuric acid) with skin and mucous membranes. If this reagent comes in contact with skin, wash with water.

• Limitations

The Abraxis Atrazine Assay will detect atrazine and related triazines to different degrees. Refer to specificity table for data on several of the triazines. The Abraxis Atrazine Assay kit provides screening results. As with any analytical technique (GC, HPLC, etc...) positive results requiring some action should be confirmed by an alternative method.

The total time required for pipetting the magnetic particles should be kept to two (2) minutes or less, therefore the total number of tubes that can be assayed in a run should be adjusted accordingly.

• Quality Control

A control solution at approximately 3 ppb of atrazine is provided with the Abraxis Atrazine Assay kit. It is recommended that it be included in every run and treated in the same manner as unknown samples. Acceptable limits should be established by each laboratory.

• Assay Procedure

Read Reagent Preparation, Procedural Notes and Precautions before proceeding.

1. Label test tubes for standards, control, and samples.

Tube Number	Contents of Tube
1,2	Diluent/Zero Standard, 0 ppb
3,4	Standard 1, 0.1 ppb
5,6	Standard 2, 1.0 ppb
7,8	Standard 3, 5.0 ppb
9,10	Control
11, 12	Sample 1
13, 14	Sample 2
15, 16	Sample 3

2. Add 200 or 250 uL of the appropriate standard, control, or sample.
3. Add 250 uL of Atrazine Enzyme Conjugate to each tube.
4. Mix the Atrazine Antibody Coupled Paramagnetic Particles thoroughly and add 500 uL to each tube.
5. Vortex for 1 to 2 seconds minimizing foaming.
6. Incubate for 15 minutes at room temperature.
7. Separate in the Magnetic Separation System for **two (2) minutes**.
8. Decant and **gently** blot all tubes briefly in a consistent manner.
9. Add 1 mL of Washing Solution to each tube and allow them to remain in the magnetic separation unit for **two (2) minutes**.
10. Decant and **gently** blot all tubes briefly in a consistent manner.
11. Repeat Steps 9 and 10 an additional time.
12. Remove the rack from the separator and add 500 uL of Color Solution to each tube.
13. Vortex for 1 to 2 seconds minimizing foaming.
14. Incubate for 20 minutes at room temperature.
15. Add 500 uL of Stopping Solution to each tube.
16. Add 1 mL Washing Solution to a clean test tube. Use as blank in Step 17.
17. Read results at 450 nm within 15 minutes after adding the Stopping Solution.

• Results

Manual Calculations

1. Calculate the mean absorbance value for each of the standards.
2. Calculate the %B/Bo for each standard by dividing the mean absorbance value for the standard by the mean absorbance value for the Diluent/Zero Standard.
3. Construct a standard curve by plotting the %B/Bo for each standard on vertical logit (Y) axis versus the corresponding atrazine concentration on horizontal logarithmic (X) axis on the graph paper provided.
4. %B/Bo for controls and samples will then yield levels in ppb of atrazine by interpolation using the standard curve.

(Contact Abraxis for detailed application information on specific photometers.)

Photometric Analyzer

Some instrument manufacturers make available photometers allowing for calibration curves to be automatically calculated and stored. Refer to instrument operating manual for detailed instructions. To obtain results for the Abraxis Atrazine Assay on instruments allowing data tranformation the following parameter settings are recommended:

Data Reduct	:	Lin. Regression
Xformation	:	Ln/LogitB
Read Mode	:	Absorbance
Wavelength	:	450 nm
Units	:	PPB
# Rgt Blk	:	0

Calibrators:

# of Cals	:	4
# of Reps	:	2

Concentrations:

#1:	0.00	PPB
#2:	0.10	PPB
#3:	1.00	PPB
#4:	5.00	PPB

Range	:	0.05 - 5.00
Correlation	:	0.990
Rep. %CV	:	10%

• Expected Results

In a study with water samples from locations across the U.S., the Abraxis Atrazine Assay was shown to correlate well with another commercial Atrazine immunoassay (r = 0.971).

• Performance Data

Precision

The following results were obtained:

Control	1	2	3
Replicates	5	5	5
Days	5	5	5
n	25	25	25
Mean (ppb)	1.34	2.65	3.99
% CV (within assay)	6.6	7.0	7.9
% CV (between assay)	2.9	3.0	5.1

Sensitivity

The Abraxis Atrazine Assay has an estimated minimum detectable concentration, based on a 90% B/Bo of 50 ppt.

Recovery

Five (5) groundwater samples, were spiked with various levels of atrazine and then assayed using the Abraxis Atrazine Assay. The following results were obtained:

Amount of Atrazine Added (ppb)	Recovery Mean (ppb)	Recovery S.D. (ppb)	Recovery %
0.5	0.55	0.09	110
1.0	1.09	0.15	109
2.0	2.16	0.14	108
4.0	3.92	0.27	98
Average			106

Specificity

The cross-reactivity of the Abraxis Atrazine Assay for various triazine analogues can be expressed as the least detectable dose (LDD) which is estimated at 90% B/Bo, or as the dose required for 50% absorbance inhibition (50% B/Bo).

B/Bo Compound	LDD (ppb)	50% (ppb)
Atrazine	0.050	0.70
Propazine	0.084	1.18
Ametryn	0.022	0.44
Prometryn	0.052	0.80
Prometon	0.140	2.20
Desethyl Atrazine	0.250	4.75
Terbutryn	0.340	210
Simazine	0.760	3.40
Desisopropyl Atrazine	29	970
Cyanazine	0.800	47
2-Hydroxy Atrazine	0.960	20

The following compounds demonstrated no reactivity in the Abraxis Atrazine Assay at concentrations up to 1000 ppb: aldicarb, aldicarb sulfoxide, aldicarb sulfone, alachlor, benomyl, butachlor, butylate, captan, carbaryl, carbendazim, carbofuran, 2,4-D, 1,3-dichloropropene, dinoseb, MCPA, metolachlor, metribuzin, pentachlorophenol, picloram, propachlor, terbufos, thiabendazole, and thiophanate-methyl.

• Ordering informattion

Abraxis Atrazine Assay Kit 100T	PN 500001
Sample Diluent	PN 500002
Standard Set	PN 500003

• Assistance

For ordering or technical assistance contact:

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Email: customerservice@lifetechindia.com, www.atzlabs.com ; www.lifetechindia.com

Phone: (215) 357-3911 * Fax: (215) 357-5232
Email: info@abraxiskits.com
WEB: www.abraxiskits.com

• General Limited Warranty

General Limited Warranty/Disclaimer: Abraxis LLC warrants the products manufactured by the Company, against defects and workmanship when used in accordance with the applicable instructions for a period not to extend beyond the product's printed expiration date. Abraxis LLC makes no other warranty, expressed or implied. There is no warranty of merchantability or fitness for a particular purpose. The ETV verifies the performance of commercial ready technologies under specific criteria, testing conditions, and quality assurance. ETV does not imply approval or certification of this product, nor does it make any explicit or implied warranties or guarantees as to product performance. www.epa.gov/etv.

ATRAZINE DETAILED FLOWCHART

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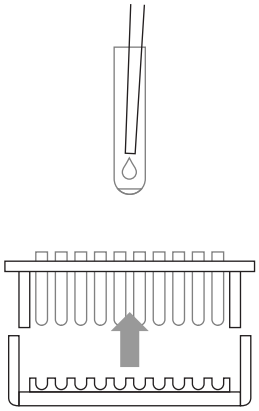
1.



Remove upper rack from magnetic base. Label test tubes for Standards, Control, and Samples.

Tube #	Content
1,2	Dilutent/Zero, 0 ppb
3,4	Standard 1, 0.1 ppb
5,6	Standard 2, 1.0 ppb
7,8	Standard 3, 5.0 ppb
9,10	Control
11,12	Sample 1
13,14	Sample 2
15,16	Sample 3

Add 200 or 250 µL of either Standards, Control or Samples to the bottom of each test tube by inserting the pipette tip all the way into the bottom of the tube without touching the sides of the tube.

2.

Add 250 µL of Atrazine Enzyme Conjugate down the inside wall of each tube by using the technique described in Box 2. *Vortex* for 1 to 2 seconds (at low speed to minimize foaming).

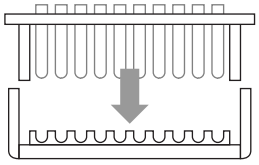
3.

Add 500 µL of thoroughly mixed Atrazine Antibody Coupled Magnetic Particles down the inside wall of each tube by using the technique described in Box 2. *Vortex* for 1 to 2 seconds (at low speed to minimize foaming).

4.

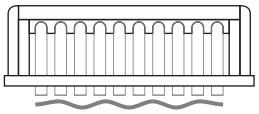
Incubate 15 minutes at room temperature (1 5 °- 30°C).

5.



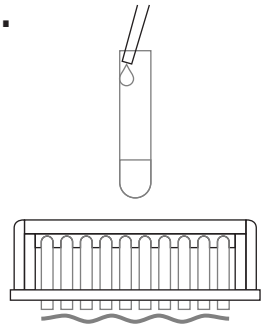
Combine the upper rack with the magnetic base; press all tubes into base; allow 2 minutes for the particles to separate.

6.



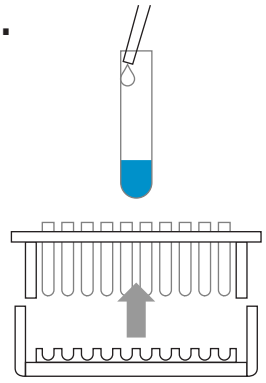
Do not separate upper rack from lower base. Using a smooth motion, *invert* the combined rack assembly over a sink and pour out the tube contents; keep inverted and **gently blot** the test tube rims on several layers of paper toweling.

7.



Add 1 mL of Washing Solution down the inside wall of each tube by using the technique described in Box 2. *Wait 2 minutes.* Using a smooth motion, invert the combined rack assembly over a sink and pour out the tube contents: keep inverted and **gently blot** the test tube rims on several layers of paper toweling. Repeat this step.

8.

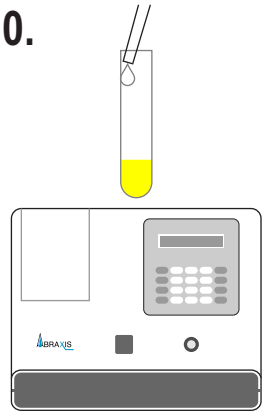


Lift the upper rack (with its tubes) off the magnetic base; *add* 500 µL of Color Reagent down the inside wall of each tube by using the technique described in Box 2. *Vortex* for 1 to 2 seconds (at low speed to minimize foaming).

9.

Incubate for 20 minutes at room temperature (15°- 30° C). During this period, add 1 mL of Washing Solution into a clean tube for use as an instrument blank in Step 10.

10.



Add 500 µL of Stopping Solution down the inside wall of each tube by using the technique previously described. *Read* results at 450 nm within 15 minutes after adding the Stopping Solution. *Multiply* results of samples by the appropriate dilution factor (if any).

[**Safety Caution:** Stopping Solution contains diluted sulfuric acid.]

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ABRAXIS

ATRAZINE CONCISE FLOWCHART

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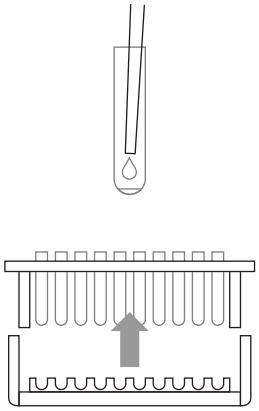
1.



Separate the rack.

Add 200 or 250 µL of either Standards, Control or Samples to the bottom of each test tube.

NOTE: Same chosen volume should be added for standards and samples.

2.

Add 250 µL of mixed Atrazine Enzyme Conjugate to each test tube.

Vortex.

3.

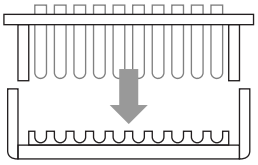
Add 500 µL of mixed Magnetic Particles to each test tube.

Vortex.

4.

Incubate for 15 minutes.

5.

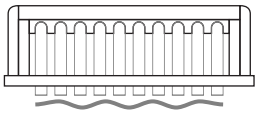


Combine the rack and magnetic base.

Seat all tubes.

Wait 2 minutes.

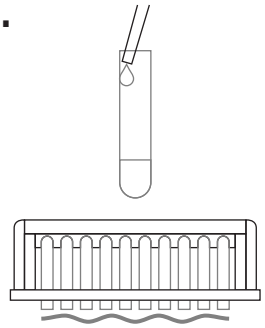
6.



Invert the combined rack.

Blot **gently**.

7.



Add 1 mL of Washing Solution.

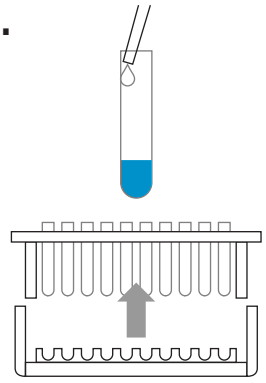
Wait 2 minutes.

Invert the combined rack.

Blot **gently**.

Repeat this step.

8.



Separate the rack.

Add 500 µL of Color Reagent to each test tube.

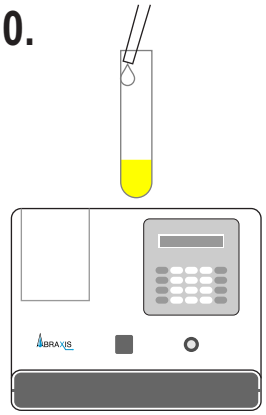
Vortex.

9.

Incubate for 20 minutes.

Prepare blank.

10.



Add 500 µL of Stopping Solution to each test tube.

Read OD 450

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ABRAXIS

Safety Data Sheet

Section 1: Product and Company Identification

1.1 Product Identifiers:
Product Name: Atrazine Magnetic Particle Kit, Atrazine High Sensitivity Magnetic Particle, Atrazine Plate Kit
Product Code: 500001, 500007, 520005
1.2 Identified Use: Determination of Atrazine in samples. **Restrictions on Use:** For research use only.
1.3 Company: Abraxis, Inc., 124 Railroad Drive, Warminster, PA 18974 USA, info@abraxiskits.com +1(215) 357-3911, FAX +1(215) 357-5232
1.4 Emergency Telephone Number: +1(215) 357-3911

Section 2: Hazard(s) Identification

2.1 Classification of the mixture: Not a hazardous mixture.
2.2 GHS Label elements, including precautionary statements: Not applicable.
2.3 Hazards not otherwise classified (HNOC) or not covered by GHS: None known.
2.4 Unknown acute toxicity: None known.

Section 3: Composition / Information on Ingredients

3.2 Mixtures: *Contains no hazardous ingredients at levels requiring disclosure by the OSHA Hazard Communication Standard (29 CFR 1910.1200)*, however it contains minor amounts of materials considered hazardous. We recommend handling all substances with caution.

Section 4: First Aid Measures

4.1 Description of first aid measures: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact: Wash off with soap and plenty of water. Consult a physician.
In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed: No data available
4.3 Indication of any immediate medical attention and special treatment needed: No data available. Treat symptomatically.

Section 5: Fire-fighting Measures

5.1 Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.
5.2 Special hazards arising from the substance or mixture: None known
5.3 Advice for firefighters: Wear self-contained breathing apparatus for fire-fighting if necessary.
5.4 Further information: No data available

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures: Use personal protective equipment (see section 8). Avoid dust formation. Avoid breathing vapors, mist, dust, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
6.2 Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
6.3 Methods and materials for containment and cleaning up: Solids (if applicable): Pick up and arrange disposal without creating dust. Sweep up and shovel. Liquids (if applicable): Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Keep in suitable, closed containers for disposal.
6.4 Reference to other sections: For information on safe handling see section 7.
For information on personal protection see section 8.
For information on disposal see section 13.

Section 7: Handling and Storage

7.1 Precautions for safe handling: See section 2. Avoid inhalation of vapors and contact with skin and eyes. Wear appropriate personal protective equipment. Do not eat, drink, or smoke in work area.
7.2 Precautions for safe storage: Keep container(s) tightly closed in a dry, well-ventilated place. Protect from physical damage. See label or product insert for appropriate storage temperature and additional specific information.

7.3 Specific end use(s): No data available

Section 8: Exposure Controls / Personal Protection

8.1 Control parameters: Not applicable.
8.2 Exposure controls:
Appropriate engineering controls: Provide adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Keep away from food and beverages.
Personal protective equipment: The usual precautionary measures, including eye/face/skin protection, should be taken when handling any chemical. Avoid contact with eyes, skin, and clothing.
Eye protection: As with handling of any chemical, wear approved safety goggles.
Skin protection: Handle with gloves. No specific information regarding glove material or thickness is available, but gloves must be impermeable and resistant to the substance being handled. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Respiratory protection: As with any chemical, where excessive vapor, mist, or dust may result, use a chemical fume hood or approved respiratory protection equipment.
Body protection: Lightweight, protective clothing.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties
Appearance: Multiple
Odor: Characteristic
Odor Threshold: No data available
pH: Multiple
Melting point/freezing point: No data available
Initial boiling point and boiling range: No data available
Flash point: Not applicable
Evaporation rate: No data available
Flammability (solid, gas): No data available
Upper/lower flammability or explosive limits No data available
Vapor pressure: No data available
Vapor density: No data available
Relative density: No data available
Water solubility: Various
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: Not applicable
Decomposition temperature: No data available
Viscosity: No data available
Explosive properties: No data available
Oxidizing properties: No data available
9.2 Other information: No data available

Section 10: Stability and Reactivity

10.1 Reactivity: No data available
10.2 Chemical stability: Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions: No data available
10.4 Conditions to avoid: No data available
10.5 Incompatible materials: No data available
10.6 Hazardous decomposition products: No data available. In the event of fire: see section 5.

Section 11: Toxicological Information

11.1 Information on toxicological effects
Acute toxicity: Not available. To the best of our knowledge, the chemical, physical, and toxicological properties of this product have not been thoroughly investigated.
Inhalation: No data available **Ingestion:** No data available **Skin contact:** Irritant to skin and mucous membranes.
Eye contact: May cause eye irritation in susceptible persons. **Respiratory or skin sensitization:** No data available
Aspiration hazard: No data available **Mutagenicity:** No data available

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Teratogenicity: No data available
Reproductive/fertility toxicity: No data available
Specific target organ toxicity, single exposure: No data available
Specific target organ toxicity, repeated exposure: No data available

Section 12: Ecological Information

12.1 Toxicity: No data available
12.2 Persistence and degradability: No data available
12.3 Bioaccumulative potential: No data available
12.4 Mobility in soil: No data available
12.5 Results of PBT and vPvB assessment: No data available
12.6 Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13: Disposal Considerations

13.1 Waste treatment methods
Product: All waste must be handled and disposed according to local, state, and federal regulations. Avoid disposing large volumes in sewer.
Contaminated packaging: All waste must be handled and disposed according to local, state, and federal regulations.
Refer to sections 7 and 8 for safe handling guidance.

Section 14: Transport Information

UN Number: Not regulated
UN Proper shipping name: Not classified as dangerous in the meaning of transport regulations.
Transport hazard class(es): No data available
Packing group: No data available
Environmental hazard: No data available
Bulk transport: No data available
Special considerations: No data available

Section 15: Regulatory Information

To the best of our knowledge, this product contains no substances which, at their given concentrations, are considered hazardous by other regulatory agencies. Refer to section 3.

Section 16: Other information

This information is based on our present knowledge. While Abraxis , Inc. believes that the data contained herein are factual and the opinions expressed represent a best effort to present accurate information, the data are not to be taken as a warranty or representation for which Abraxis , Inc. assumes legal responsibility. The information shall not be taken as being all-inclusive and is to be used only as a guide. The data are offered solely for the user's consideration, investigation, and verification. These suggestions should not be confused with either state, municipal, or insurance requirements, or with national safety codes and constitute no warranty. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state, and local regulations.

All materials and mixtures may present unknown hazards and should be used with caution. Since Abraxis , Inc. cannot control the methods, volumes, or conditions of use of this product, Abraxis , Inc. shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. An individual technically qualified to handle potentially hazardous chemicals must supervise the use of this material. This product is sold for research use only. It is not for any human or animal therapeutic or clinical diagnostic use.

Date this SDS was prepared: 5/20/2016
Version: 2
Changes from previous version: Abraxis, LLC changed to Abraxis, Inc.