GREATER SAN DIEGO SCIENCE & ENGINEERING FAIR (GSDSEF) CERTIFICATION OF HAZARDOUS CHEMICALS, DEVICES, ACTIVITIES CONTROL FORM

The SRC Pre-Approval Form and this form must be completed, signed, and approved by the GSDSEF Scientific Review Committee (SRC) BEFORE experimentation begins. If there are any questions or concerns about a student's project, contact Steve Rodecker, stevegsdsef@gmail.com. Save a copy or take a picture of this completed and signed form. The completed and signed Form must then be given to your teacher who will file it for quick reference if needed. Remember that this form MUST BE COMPLETED, SIGNED, attached to the SRC Pre-Approval Form, SUBMITTED through your GSDSEF account, and APPROVED by the GSDSEF SRC before experimentation can begin.

Student 1 Name (last, first, middle initial)			
Student 2 Name (When applicable)			
School		Grade(s)	/
Teacher/Advisor	email address		

Project Title

The student(s), and all who sign this form, MUST READ AND COMPLY with the following rules which apply to research using hazardous chemicals, devices and activities. These include substances and devices that are regulated by local, state, country, or international law, most often with restrictions of their use by minors such as DEA-controlled substances, prescription drugs, alcohol, tobacco, firearms and explosives. Hazardous activities are those that involve a level of risk above and beyond that encountered in the student's everyday life.

These rules are intended to protect the student researcher by ensuring proper supervision and the consideration of all potential risks so that the appropriate safety precautions are taken. Students are required to meet all standards imposed by ISEF, school, local, and/or regional fair(s).

Complete ISEF Rules and Guidelines, Hazards GSDSEF Rules

- 1. The student researcher must conduct a risk assessment in collaboration with a Teacher, Designated Supervisor, Adult Sponsor, and/or Qualified Scientist prior to experimentation, which will be detailed in this Form.
- 2. The Teacher, Designated Supervisor, Adult Sponsor, and/or Qualified Scientist must directly supervise the use of hazardous chemicals and devices and involvement in hazardous activities.
- 3. All regulated substances must be obtained in accordance with local, state, and U.S. federal laws.
- 4. The student, Teacher, Designated Supervisor, Adult Sponsor, or Qualified Scientist must obtain chemicals, devices, or forms requiring Federal/State Permits prior to the start of experimentation. Any DEA-controlled substances must be supervised by a Qualified Scientist who is licensed by the DEA.
- 5. The student researcher must minimize the impact of the experiment on the environment as detailed in this Form.
- 6. Prescription Drugs- a) Student researchers are prohibited from administering prescription drugs to human participants. b) A veterinarian must supervise student administration of any prescription drugs to vertebrate animals.
- 7. Alcohol and Tobacco—a) Fermentation studies during which minute quantities of ethyl alcohol are permitted. b) Students are prohibited from conducting experiments where consumable ethyl alcohol is produced by distillation. However, students are allowed to distill alcohol for fuel or other non-consumable products. To do so, the work must be conducted at school or a Regulated Research Institution and follow all local, state, and federal laws. C. Projects involving tobacco and tobacco products are prohibited by GSDSEF Rules.
- 8. Firearms, Rockets, and Explosives- a) Projects involving smokeless powder; black powder; the loading or reloading of ammunition; explosives; the manufacture of rocket fuel and/or alcohol/other intoxicants or gasohol (or the production of these), are prohibited by GSDSEF Rules.
- 9. Regulated Drones- Projects involving unmanned aircraft systems (UAS)/drones must follow all state, Federal and country laws. See the Federal Aviation Administration (FAA) for more information about drones.
- 10. Radiation- Projects involving radionuclides (radioisotopes) and X-rays must involve a careful examination of the risks associated with the study and appropriate safety precautions must be taken. a) All studies may not exceed the dose limits set by the Nuclear Regulatory Commission of 0.5 mrem/hr or 100 mrem/year of exposure. b) A study using 10–25 kvolts must have a risk assessment conducted and must be preapproved by the SRC to assess safety. Such a study must be conducted in a metal-lined chamber using a camera only, not direct view through glass. A dosimeter or radiation survey meter is required to measure radiation exposure. c) All studies using > 25 kvolts must be conducted at an institution with a Licensed Radiation Program and must be preapproved by the Institutions' Radiation Safety Officer or the Committee which oversees the use of ionizing radiation to ensure compliance with state and federal regulations.

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Research Plan

1. List all hazardous chemicals, activities, or devices that will be used. Provide the sources for chemicals or devices.		
2. Identify and assess the risks and hazards involved in this project.		
2. 140.141.y a.14 400000 0.10 1.101.0 a.14 1.14 1.14 0.14 0.14 0.14 0.14 0.14 0		
3. Describe: a) Procedures to be performed by the student. b) Procedures to be performed by supervising scientist/adult supervisor.		
4. Describe the safety precautions and procedures that will be used to reduce the risks.		
5. Describe the disposal procedures that will be used (when applicable).		
6. List the source(s) of safety information.		
7. How will potential environmental impacts be addressed?		

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Before experimentation can begin, you must

- 1) <u>attach</u> this completed, signed form and any other necessary forms to the SRC Pre-Approval Form in your GSDSEF account. Each additional form must either be in pdf format or a picture.
 - a) If research is conducted at a Regulated Research Institution (RRI), the Qualified Scientist must complete and give to you ISEF Form 2 (Qualified Scientist). For other circumstances, see GSDSEF Rules.
- 2) submit the SRC Pre-Approval Form, this pdf form and necessary, additional forms to the SRC of the GSDSEF.
- 3) receive approval from the SRC of the GSDSEF.

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Student Certification I certify that I will follow GSDSEF Rules and Regulations and the Rules and Guice regarding hazardous chemicals, devices, and activities listed on page 1 of this form		
Student 1 Name		
Student 1 Signature	Date	
Student 2 Name (if applicable)		
Student 2 Signature (if applicable)	Date	
Teacher/Advisor Certification I certify that I have reviewed and approved the Research Plan for this project and with GSDSEF Rules and Regulations and ISEF Rules and Guidelines pertaining t		
Teacher/Advisor Name		
Teacher/Advisor Signature	Date	
Parent/Guardian Certification I know my son/daughter will be using potentially hazardous substances and/or devices and/or engaging in potentially hazardous procedures for research and he/she must follow all GSDSEF and ISEF rules, regulations, and guidelines.		
Parent/Guardian 1 Name		
Parent/Guardian 1 Signature	Date	
Parent/Guardian 2 Name (if applicable)		
Parent/Guardian 2 Signature (if applicable)	Date	
Designated Supervisor/Adult Sponsor Certification (if necessary, see GSDSEF Rules) I certify that I have reviewed and approved the Research Plan for this project and I will supervise and accept primary responsibility for potentially hazardous substances/devices/activities in this project listed on page 1 of this form. I certify I have been trained in the techniques to be used by this/these students and I will provide direct supervision of the research.		
Adult Supervisor's Name	email	
Adult Supervisor's Signature	Date	
Qualified Scientist Certification (if necessary, see GSDSEF Rules) I certify that I have reviewed and approved the Research Plan of this project before experimentation began. If experimentation is to be done at a Regulated Research Institution, or I provide direct supervision or training elsewhere, I have filled out and signed ISEF Qualified Scientist Form 2 I will ensure that all rules and guidelines of the GSDSEF and the International Science and Engineering Fair pertaining to hazardous substances, devices, or activities are adhered to as listed on page 1 of this form. I will provide for any necessary training of a Designated Supervisor. I will provide advice and supervision personally or through a Designated Supervisor.		
Qualified Scientist Name	Degree	
Signature	Date	
Institution	Telephone	
Address	email	