

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Identification**

Product form : Mixture  
Product name : **IMPACT ACTIVATOR-S**  
CAS No : 7664-93-9  
Product code : C-701  
Formula : H2SO4

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

Use of the substance/mixture : Acidic Component  
Use of the substance/mixture :

**1.3. Details of the supplier of the safety data sheet**

ENVIRONMENTAL DYNAMICS, INC.  
3142 MERCER UNIVERSITY DR.  
MACON, GA 31204  
TELEPHONE 800-448-4723

**1.4. Emergency telephone number**

Emergency number : TBD

**SECTION 2: Hazard(s) identification**

**2.1. Classification of the substance or mixture**

**GHS-US classification**

Met. Corr. 1 May be corrosive to metals  
Skin Corr. 1A Causes severe skin burns and eye damage  
Eye Dam. 1 Causes serious eye damage  
Carc. 1A May cause cancer (Dermal)

**2.2. Label elements**

**GHS-US labelling**

Hazard pictograms (GHS-US) :



GHS05

GHS08

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

May be corrosive to metals  
Causes severe skin burns and eye damage  
Causes serious eye damage  
May cause cancer (Dermal)

Precautionary statements (GHS-US) :

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Keep only in original container  
Do not breathe mist, spray, vapours, fume  
Wash hands, forearms and face thoroughly after handling  
Wear eye protection, face protection, protective clothing, protective gloves  
If swallowed: rinse mouth. Do NOT induce vomiting  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
If inhaled: Remove person to fresh air and keep comfortable for breathing  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If exposed or concerned: Get medical advice/attention  
Specific treatment (see first aid section. on this label)  
Wash contaminated clothing before reuse  
Absorb spillage to prevent material damage  
Store locked up  
Store in corrosive resistant container with a resistant inner liner

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Dispose of contents/container to an approved waste disposal plant

### 2.3. Other hazards

Other hazards not contributing to the classification : Reacts violently with water.

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	GHS-US classification
Sulfuric acid, conc>51%, aqueous solutions	(CAS No) 7664-93-9	93	Skin Corr. 1A, H314 Carc. 1A, H350

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Causes severe skin burns and eye damage.

Symptoms/injuries after inhalation : Corrosive to the respiratory tract. Burns. Cough. Sore throat.

Symptoms/injuries after skin contact : Burns. Red skin.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Burns. Abdominal pain. Shock.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Carbon dioxide. Dry powder.

Unsuitable extinguishing media : Water.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : No data available on direct fire hazard.

Explosion hazard : No data available on direct explosion hazard.

Reactivity : Reacts violently with water. Reacts violently with (some) acids. Reacts violently with (some) bases: (increased) risk of fire.

### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.

Other information : Contact with strong bases or alkaline materials may cause violent reactions or explosions. Risk of fire and explosion. Thermal decomposition yields toxic products which can be corrosive in the presence of moisture.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- Protective equipment : Gloves. Protective goggles. Face-shield. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus. Large spills/in enclosed spaces: gas-tight suit. Corrosion-proof suit.
- Emergency procedures : Do not get in eyes, on skin, or on clothing. Evacuate unnecessary personnel. In case of hazardous reactions: keep upwind. On contact with moisture/water: consider evacuation. Only qualified personnel equipped with suitable protective equipment may intervene. Ventilate spillage area.

##### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

- For containment : Large spills: Cautiously neutralize spilled liquid. Wash away neutralized product with plenty of water.
- Methods for cleaning up : Small spills: Contain and collect spillages with non-combustible absorbent materials, e.g. Do not absorb with saw-dust or any other combustible absorbent material. Wash away neutralized product with plentiful water.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Additional hazards when processed : May be corrosive to metals.
- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Do not breathe mist, spray, vapours, gas. Avoid contact during pregnancy/while nursing. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
- Hygiene measures : Wash hands thoroughly after handling.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Comply with applicable regulations.
- Storage conditions : Keep only in the original container in a cool, well ventilated place away from : heat. Keep container closed when not in use.
- Incompatible products : Oxidizing agent. Strong acids. Strong bases. Water.
- Incompatible materials : Sources of ignition. Direct sunlight.
- Packaging materials : Store in original container.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

IMPACT ACTIVATOR-S (7664-93-9)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
ACGIH	Remark (ACGIH)	Pulm func
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Sulfuric acid, conc>51%, aqueous solutions (7664-93-9)		
ACGIH	Remark (ACGIH)	Pulm func
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>

#### 8.2. Exposure controls

- Appropriate engineering controls : Ensure good ventilation of the work station.

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Personal protective equipment : Gloves. Face shield. In case of splash hazard: safety glasses. Respiratory protection not required in normal conditions.



Hand protection : Wear protective gloves.  
Eye protection : Chemical goggles or face shield.  
Skin and body protection : Wear suitable protective clothing.  
Respiratory protection : Respiratory protection not required in normal conditions. In case of insufficient ventilation, wear suitable respiratory equipment.  
Other information : Do not eat, drink or smoke during use.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Color : Red  
Odor : Acidic Almost odorless / Sulfur  
Odor threshold : No data available  
pH : <1-1  
Melting point : No data available  
Freezing point : No data available  
Boiling point : No data available  
Flash point : No data available  
Relative evaporation rate (butylacetate=1) : No data available  
Flammability (solid, gas) : No data available  
Explosive limits : No data available  
Explosive properties : No data available  
Oxidizing properties : No data available  
Vapor pressure : No data available  
Relative density : No data available  
Relative vapor density at 20 °C : No data available  
Solubility : Soluble in water.  
Log Pow : No data available  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Viscosity : No data available  
Viscosity, kinematic : No data available  
Viscosity, dynamic : No data available

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Reacts violently with water. Reacts violently with (some) acids. Reacts violently with (some) bases: (increased) risk of fire.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

Risk of fire and explosion. Reacts vigorously with strong oxidizers and acids. Reacts violently with water.

#### 10.4. Conditions to avoid

Keep away from any possible contact with water, because of violent reaction and possible flash fire.

#### 10.5. Incompatible materials

Water : Strong bases. Strong acids. Combustible materials. Oxidizing agent. Acids. metals.

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### 10.6. Hazardous decomposition products

Corrosive vapors.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

<b>Sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>	
LD50 oral rat	> 2140 mg/kg (Rat)
Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer (Dermal). Not classified.

<b>IMPACT ACTIVATOR-S (7664-93-9)</b>	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens

<b>Sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: Corrosive to the respiratory tract. Burns. Cough. Sore throat.
Symptoms/injuries after skin contact	: Burns. Red skin.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Burns. Abdominal pain. Shock.

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>Sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>	
LC50 fish 1	42 mg/l (LC50; 96 h)
EC50 Daphnia 1	29 mg/l (EC50; 24 h)

### 12.2. Persistence and degradability

<b>IMPACT ACTIVATOR-S (7664-93-9)</b>	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components available.

<b>Sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components available. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

### 12.3. Bioaccumulative potential

<b>IMPACT ACTIVATOR-S (7664-93-9)</b>	
Bioaccumulative potential	Not established.

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<b>Sulfuric acid, conc&gt;51%, aqueous solutions (7664-93-9)</b>	
Log Pow	-2.20 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Neutralize the base with dry sodium bisulphate, add water slowly and flush the neutral solution down the drain with an excess of water. Attention : national and/or local laws and regulations may preclude the use of this method.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to approved waste disposal site.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

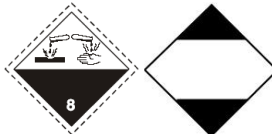
Transport document description : UN1830 Sulfuric acid, 8, II

UN-No.(DOT) : UN1830

Proper Shipping Name (DOT) : Sulfuric acid

Transport hazard class(es) (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT) : 8 - Corrosive  
LTD QTY - Limited quantity



Packing group (DOT) : II - Medium Danger

DOT Packaging Exceptions (49 CFR 173.xxx) : 154

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 1 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L

DOT Vessel Stowage Location : C - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel.

DOT Vessel Stowage Other : 14 - For metal drums, stowage permitted under deck on cargo vessels

Other information : No supplementary information available.

### TDG

No additional information available

### Transport by sea

UN-No. (IMDG) : 1830

Proper Shipping Name (IMDG) : SULFURIC ACID

Class (IMDG) : 8 - Corrosive substances

Packing group (IMDG) : II - substances presenting medium danger

### Air transport

UN-No. (IATA) : 1830

Proper Shipping Name (IATA) : Sulfuric acid

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Class (IATA) : 8 - Corrosives  
Packing group (IATA) : II - Medium Danger

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### IMPACT ACTIVATOR-S (7664-93-9)

RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

sulfuric acid, conc>51%, aqueous solutions	CAS No 7664-93-9	96%
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##### Sulfuric acid, conc>51%, aqueous solutions (7664-93-9)

Not subject to reporting requirements of the United States SARA Section 313  
Subject to reporting requirements of United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	1000 lb

#### 15.2. International regulations

##### CANADA

No additional information available

##### EU-Regulations

No additional information available

#### National regulations

##### IMPACT ACTIVATOR-S (7664-93-9)

Listed on IARC (International Agency for Research on Cancer)  
Listed as carcinogen on NTP (National Toxicology Program)

##### Sulfuric acid, conc>51%, aqueous solutions (7664-93-9)

Listed on IARC (International Agency for Research on Cancer)  
Listed as carcinogen on NTP (National Toxicology Program)

#### 15.3. US State regulations

##### IMPACT ACTIVATOR-S (7664-93-9)

State or local regulations	U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List
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California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

##### sulfuric acid, conc>51%, aqueous solutions (7664-93-9)

U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - Pennsylvania - RTK (Right to Know) List

### SECTION 16: Other information

Other information : None.

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### Full text of H-statements:

Carc. 1A	Carcinogenicity, Category 1A
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H350	May cause cancer

### NFPA health hazard

: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

### NFPA fire hazard

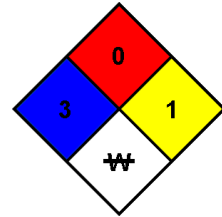
: 0 - Materials that will not burn.

### NFPA reactivity

: 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.

### NFPA specific hazard

: W - Unusual reactivity with water. This indicates a potential hazard using water to fight a fire involving this material. When a compound is both water-reactive and an oxidizer, the W/bar symbol should go in this quadrant and the OX warning is placed immediately below the NFPA diamond.



### HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

### Personal Protection

: D  
D - Face shield and eye protection, Gloves, Synthetic apron

### SDS US (GHS HazCom 2012)

*No representation or warranty, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature, is made with respect to information concerning the product referred to in this document. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, it is impossible to foresee every health effect or exposure risk incurred by the use of this product. All chemicals present some degree of hazard and should be used with caution. The information and recommendations contained herein are presented in good faith. The user should review this information in conjunction with their knowledge of the application intended to determine the suitability of this product for such purpose. In no event will the supplier be responsible for any damages of any nature whatsoever, resulting from the use, reliance upon, or the misuse of this information. Furthermore, it is the direct responsibility of the user to comply with all applicable regulations governing the use and disposal of this material.*