





Section 1. Identification of the Substance/Mixture and the Company

1.1 Product Identifier	Product Name: Oxidizer Solution Product Number: SOS	
1.2 Intended use	EN: Laboratory reagent. For professional use only. DA: Laboratoriereagens. Kun til professionelt brug. DE: Laboratoriumreagens. Alleen voor professioneel gebruik. EL: Αντιδραστήριο εργαστηρίου. Για επαγγελματική χρήση μόνο. ES: Reactivo de laboratorio. Sólo para uso profesional. FR: Réactif de laboratoire. Pour un usage professionnel uniquement. IT: Laboratorio di reagente. Solo per uso professionale. NL: Laboratoriumreagens. Alleen voor professioneel gebruik. PT: Reagente de laboratório. Para uso profissional. SV: Laboratoriereagens. Endast för yrkesmässig användning.	
1.3 Details of the supplier of the safety data sheet	Manufacturer	ScyTek Laboratories, Inc.
	Address	205 South 600 West Logan, Utah 84321 U.S.A.
	Phone Number	800-729-8350
	Fax Number	435-755-0015
	e-mail	msds@scytek.com
	Website	scytek.com

Section 2. Hazards Identification

2.1 GHS Classification	Skin corrosion (Category 1B) – H314 Serious eye damage (Category 1) – H318 Flammable liquids (Category 2) – H225 Specific target organ toxicity (Category 3), Central nervous system – H336	
Classification: Directive 1999/45/EC		F R11, R34, R41, R67; S7, S9, S16, S23, S24/25, S26, S28, S36/37/39, S45 EN: Highly flammable DA: Meget brandfarlig DE: Leichtentzündlich EL: Πολύ εύφλεκτο ES: Fácilmente inflamable FR: Facilement inflammable IT: Facilmente infiammabile NL: Licht ontvlambaar PT: Facilmente inflamável SV: Mycket brandfarligt













	 <p>C EN: Corrosive DA: Ætsende DE: Ätzend EL: Διαβρωτικό ES: Corrosivo FR: Corrosif IT: Corrosivo NL: Bijtend PT: Corrosivo SV: Frätande</p> <p>For full text of R- & S- phrases: see Section 15.</p>								
2.2 Label Elements	<p>Pictogram(s):</p>  <p>Signal word: Danger</p> <p>Hazard statement(s): H225 – Highly flammable liquid and vapour H314 – Causes severe skin burns and eye damage H336 – May cause drowsiness or dizziness</p> <p>Precautionary statement(s): P210 – Keep away from heat/sparks/open flames/hot surfaces – No smoking P302+ P352 – IF ON SKIN: Wash with plenty of soap and water P305 + P351 + P315 – IF IN EYES: Rinse cautiously with water for several minutes. Get immediate medical advice/attention.</p>								
NFPA Scale: 0-4									
HMIS (U.S.A.) Scale: 0-4	<table border="1" style="width: 100%;"> <tr> <td style="background-color: #e6f2ff;">HEALTH</td> <td style="text-align: center;">2</td> </tr> <tr> <td style="background-color: #ffcccc;">FLAMMABILITY</td> <td style="text-align: center;">3</td> </tr> <tr> <td style="background-color: #ffffcc;">PHYSICAL HAZARD</td> <td style="text-align: center;">0</td> </tr> <tr> <td>PERSONAL PROTECTION</td> <td style="text-align: center;">G</td> </tr> </table>	HEALTH	2	FLAMMABILITY	3	PHYSICAL HAZARD	0	PERSONAL PROTECTION	G
HEALTH	2								
FLAMMABILITY	3								
PHYSICAL HAZARD	0								
PERSONAL PROTECTION	G								
2.3 Other Hazards	<p>PBT: This mixture does not contain any substances that are assessed to be a PBT. vPvB: This mixture does not contain any substances that are assessed to be a vPvB.</p>								




Section 3. Composition and Information on Ingredients

3.2 Chemical Description: Mixture

*May contain additional non-hazardous proprietary ingredients.

*May contain additional active ingredients at concentrations <0.1%/w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Ethyl Alcohol	64-17-5	200-578-6	 Danger. 2 H225 Highly flammable liquid and vapour.	≤ 62
Phenol	108-95-2	203-632-7	 Danger. 3 H311 Toxic in contact with skin. 3 H331 Toxic if inhaled.  Warning. 2 H341 Suspected of causing genetic defects. STOT RE, 2 H371 May cause damage to organs. 2.H373 Causes damage to organs through prolonged or repeated exposure.  Danger. H314 Causes severe skin burns and eye damage.  Warning. 4 H302 Harmful if swallowed.  Warning. H402 Harmful to aquatic life.	≤ 5
Isopropyl Alcohol	67-63-0	200-661-7	 Warning. 2. H319 Causes serious eye irritation. 3. H336 May cause drowsiness or dizziness.  Danger. 3 H225 Highly flammable liquid and vapour.	≤ 3
Hydrochloric Acid	7647-01-0	231-595-7	 Warning. 3. H335 May cause respiratory irritation.  Danger. 1B. H314 Causes severe skin burns and eye damage.	≤ 1
Formic Acid	64-18-6	200-579-1	 Warning. 3 H226 Flammable liquid and vapour.  Warning. 4 H302 Harmful if swallowed.	≤ 1

			 Danger. 1A. H314 Causes severe skin burns and eye damage.  Danger. 3 H331 Toxic if inhaled.  Warning. H402 Harmful to aquatic life.
--	--	--	---

Section 4. First Aid Measures

4.1 Description of first aid measures

Eye Contact: Check for and remove contact lenses. Immediately flush eyes with copious amounts of water and get immediate medical attention.

Skin Contact: Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

Inhalation: If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5. Fire Fighting Measures

5.1 Extinguishing Media	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
5.2 Special hazards arising from the substance or mixture	None known
5.3 Advice for firefighters	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.

6.2 Environmental precautions

Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.

6.3 Methods and materials for containment and cleaning up

Wipe up or absorb spill using inert absorbent and place in a suitable waste container for disposal.

Section 7. Handling and Storage

7.1 Precautions for safe handling.

Avoid contact with skin and eyes.
Wash thoroughly after handling.
Avoid breathing vapor.

7.2 Conditions for safe storage, including any incompatibilities.

Store in well ventilated area.
Keep container tightly closed.
Store at 15-30°C.

7.3 Specific end use(s).

See section 1.2

Section 8. Exposure Controls / Personal Protection

8.1 Control parameters	<p>Exposure Limits:</p> <p><i>Ethanol:</i> NIOSH REL: 1000 ppm (1900 mg/m³) TWA OSHA PEL: 1000 ppm (1900 mg/m³) TWA ACGIH TLV: 1000ppm (1900mg/m³) TWA</p> <p><i>Hydrochloric Acid:</i> NIOSH REL : C 5 ppm (7 mg/m³) OSHA PEL : C 5 ppm (7 mg/m³)</p> <p><i>Isopropanol:</i> NIOSH REL: TWA 400 ppm (980 mg/m³) ST 500 ppm (1225 mg/m³) OSHA PEL: TWA 400 ppm (980 mg/m³) ACGIH TLV: TWA 200 ppm STEL 400 ppm</p> <p><i>Phenol:</i> NIOSH REL : TWA 5 ppm (19 mg/m³) C 15.6 ppm (60 mg/m³) [15-minute] [skin] OSHA PEL : TWA 5 ppm (19 mg/m³) [skin]</p>
8.2 Exposure controls	<p>Personal Protective Equipment (PPE):</p> <p>Eye/Face protection. Safety glasses or goggles are required.</p> <p>Skin protection. Protective clothing is required.</p> <p>Hand protection. Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove.</p> <p>Respiratory protection. Avoid breathing vapor.</p> <p>Environmental exposure controls. Avoid releasing large quantities into the environment. No additional information.</p>
Engineering Controls	<p>Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.</p>

Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	Clear colorless
Odor	Alcohol odor
Odor Threshold	Unknown
pH	Acidic
Melting Point/ Freezing Point	Unknown
Initial Boiling Point	Unknown
Flash Point	Unknown
Evaporation Rate	Unknown
Flammability (solid, gas)	Unknown
Upper/Lower Flammability Limits	Unknown
Vapor Pressure	Unknown
Vapor Density	Unknown
Relative Density	Unknown
Solubility(ies)	Water
Partition Coefficient: n-octanol/water	Unknown
Auto-Ignition Temperature	Unknown
Decomposition Temperature	Unknown
Viscosity	Unknown
Explosive Properties	Not explosive.
Oxidizing Properties	Unknown

Section 10. Stability and Reactivity

10.1 Reactivity	No relevant data available.
10.2 Chemical Stability	Stable under normal temperatures and pressures.
10.3 Possibility of Hazardous Reactions	No hazardous reactions known.
10.4 Conditions to Avoid	Fire, static electricity, direct sunlight.
10.5 Incompatible Materials	Strong oxidizing agents.
10.6 Hazardous Decomposition Materials	Carbon monoxide, carbon dioxide.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects.	<p>Acute Toxicity. No relevant data available</p> <p>Skin Corrosion/Irritation. Corrosive to skin and mucous membranes.</p> <p>Serious Eye Damage/Irritation. Corrosive to eye.</p> <p>Respiratory or skin sensitization. No relevant data available.</p>
---	---

	Germ Cell Mutagenicity. No relevant data available.
Carcinogenicity.	International Agency for Research on Cancer (IARC). Hydrochloric Acid is listed as Group 3 – Not classifiable as to carcinogenicity in humans Isopropyl Alcohol is listed as Group 3 – not Classifiable as to carcinogenicity in humans National Toxicology Program (NTP). None of the components are listed.

Section 12. Ecological Information


12.1 Toxicity	Fish: No relevant studies identified. Crustacea: No relevant studies identified. Algae/Aquatic Plants: No relevant studies identified. Other Organisms: No relevant studies identified.
12.2 Persistence and Degradability.	No relevant studies identified.
12.3 Bioaccumulative Potential.	No relevant studies identified.
12.4 Mobility in Soil.	Miscible in water. May spread in water systems. This component is non-volatile.
Additional Remarks	None.
12.5 Results of PBT and vPvB Assessment.	PBT: This mixture does not contain any substances that are assessed to be a PBT. vPvB: This mixture does not contain any substances that are assessed to be a vPvB.

Section 13. Disposal Considerations

13.1 Waste Disposal Methods.	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
Product/Packaging Disposal.	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
Other Disposal Recommendations.	No relevant data available.

Section 14. Transport Information

14.1 UN Number DOT, IATA,IMDG, ADR	DOT: 1170 ADR/RID: 1170 IMDG: 1170 IATA: 1170
14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR	ADR/RID: Ethanol IMDG: Ethanol IATA: Ethanol DOT: Ethanol
14.3 Transport Hazard Class(es)	DOT: 3 IATA: 3 IMDG: 3 ADR/RID:3

	
14.4 Packing Group DOT, IATA,IMDG, ADR	ADR/RID: III IMDG: III IATA: III DOT: III
14.5 Environmental Hazards	Marine Pollutant: No
14.6 Special Precautions for User	Not applicable.

Section 15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.	
Extremely Hazardous Substances; Section 355	None of the components in this mixture are listed.
Toxic Substances Control Act; TSCA	All of the components in this mixture are listed.
California Proposition 65	None of the components in this mixture are listed.
Right To Know Components	<p>Ethanol Massachusetts Pennsylvania New Jersey</p> <p>Phenol Massachusetts Pennsylvania New Jersey</p> <p>Isopropyl Alcohol Massachusetts Pennsylvania New Jersey</p> <p>Hydrochloric Acid Massachusetts Pennsylvania New Jersey</p> <p>Formic Acid Massachusetts Pennsylvania New Jersey</p>
Other Regulations	SARA 313 Isopropyl Alcohol Phenol Formic Acid
15.2 Chemical Safety Assessment	No Chemical Safety Assessment has been carried out for this substance/mixture by ScyTek Laboratories, Inc.
R phrases	R11 EN: Highly flammable. DA: Meget brandfarlig. DE: Leichtentzündlich. EL: Πολύ εύφλεκτο.

	<p>ES: Fácilmente inflamable. FR: Facilement inflammable. IT: Facilmente infiammabile. NL: Licht ontvlambaar. PT: Facilmente inflamável. SV: Mycket brandfarligt.</p> <p>R34 EN: Causes burns. DA: Ætsningsfare. DE: Verursacht Verätzungen. EL: Προκαλεί εγκαύματα. ES: Provoca quemaduras. FR: Provoque des brulures. IT: Provoca ustioni. NL: Veroorzaakt brandwonden. PT: Provoca queimaduras. SV: Frätande.</p> <p>R41 EN: Risk of serious damage to eyes. DA: Risiko for alvorlig øjenskaade. DE: Gefahr ernster Augenschäden. EL: Κίνδυνος σοβαρών οφθαλμικών βλαβών. ES: Riesgo de lesiones oculares graves. FR: Risque de lésions oculaires graves. IT: Rischio di gravi lesioni oculari. NL: Gevaar voor ernstig oogletsel. PT: Risco de lesões oculares graves. SV: Risk för allvarliga ögonskador.</p> <p>R67 EN: Vapours may cause drowsiness and dizziness. DA: Damppe kan give sløvhed og svimmelhed. DE: Dämpfe können Schläfrigkeit und Benommenheit verursachen. EL: Η εισπνοή ατμών μπορεί να προκαλέσει υπνηλία και ζάλη. ES: La inhalación de vapores puede provocar somnolencia y vértigo. FR: L'inhalation de vapeurs peut provoquer somnolence et vertiges. IT: L'inalazione dei vapori può provocare sonnolenza e vertigini. NL: Dampen kunnen slaperigheid en duizeligheid veroorzaken. PT: Pode provocar sonolência e vertigens, por inalação dos vapores. SV: Ångor kan göra att man blir dåsig och omtöcknad.</p>
<p>S phrases</p>	<p>S7 EN: Keep container tightly closed. DA: Emballagen skal holdes tæt lukket. DE: Behälter dicht geschlossen halten. EL: Το δοχείο να διατηρείται ερμητικά κλεισμένο. ES: Manténgase el recipiente bien cerrado. FR: Conserver le récipient bien fermé. IT: Conservare il recipiente ben chiuso. NL: In goed gesloten verpakking bewaren. PT: Manter o recipiente bem fechado. SV: Förpackningen förvaras väl tillsluten.</p> <p>S9 EN: Keep container in a well-ventilated place. DA: Emballagen skal opbevares på et godt ventileret sted. DE: Behälter an einem gut gelüfteten Ort aufbewahren. EL: Το δοχείο να διατηρείται σε καλά αεριζόμενο μέρος. ES: Consérvese el recipiente en lugar bien ventilado. FR: Conserver le récipient dans un endroit bien ventilé. IT: Conservare il recipiente in luogo ben ventilato. NL: Op een goed geventileerde plaats bewaren.</p>

	<p>PT: Manter o recipiente num local bem ventilado. SV: Förpackningen förvaras på väl ventilerad plats.</p> <p>S16 EN: Keep away from sources of ignition - No smoking. DA: Holdes væk fra antændelseskilder - Rygning forbudt. DE: Von Zündquellen fernhalten - Nicht rauchen. EL: Μακριά από πηγές ανάφλεξης - Απαγορεύεται το κάπνισμα. ES: Conservar alejado de toda llama o fuente de chispas - No fumar. FR: Conserver a l'ecart de toute flamme ou source d'étincelles - Ne pas fumer. IT: Conservare lontano da fiamme e scintille - Non fumare. NL: Verwijderd houden van ontstekingsbronnen - Niet roken. PT: Manter afastado de qualquer chama ou fonte de ignição - Não fumar. SV: Förvaras åtskilt från antändningskällor - Rökning förbjuden.</p> <p>S23 EN: Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer). DA: Undgå indånding af gas/røg/dampe/aerosol-tåger (den eller de pågældende betegnelser angives af fabrikanten). DE: Gas/Rauch/Dampf/Aerosol nicht einatmen (geeignete Bezeichnung(en) vom Hersteller anzugeben). EL: Μην αναπνέετε αέρια/αναθυμιάσεις/ατμούς/εκνεφώματα (η κατάλληλη διατύπωση καθορίζεται από τον παραγωγό). ES: No respirar los gases/humos/vapores/aerosoles (denominación(es) adecuada(s) a especificar por el fabricante). FR: Ne pas respirer les gaz/fumées/vapeurs/aérosols (terme(s) approprié(s) à indiquer par le fabricant). IT: Non respirare i gas/fumi/vapori/aerosoli (termine(i) appropriato(i) da precisare da parte del produttore). NL: Gas/rook/damp/spuitnevel niet inademen. (toepasselijke term(en) aan te geven door de fabrikant). PT: Não respirar os gases/vapores/fumos/aerossóis (termo(s) apropriado(s) a indicar pelo produtor). SV: Undvik inandning av gas/rök/ånga/dimma (lämplig formulering anges av tillverkaren).</p> <p>S24/25 EN: Avoid contact with skin and eyes. DA: Undgå kontakt med huden og øjnene. DE: Berührung mit den Augen und der Haut vermeiden. EL: Αποφεύγετε επαφή με το δέρμα και με τα μάτια. ES: Evítese el contacto con los ojos y la piel. FR: Éviter le contact avec la peau et les yeux. IT: Evitare il contatto con gli occhi e con la pelle. NL: Aanraking met de ogen en de huid vermijden. PT: Evitar o contacto com a pele e os olhos. SV: Undvik kontakt med huden och ögonen.</p> <p>S26 EN: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. DA: Kommer stoffet i øjnene, skylles straks grundigt med vand og læge kontaktes. DE: Bei Berührung mit den Augen sofort gründlich mit Wasser abspülen und Arzt konsultieren. EL: Σε περίπτωση επαφής με τα μάτια πλύνετε τα αμέσως με άφθονο νερό και ζητήστε ιατρική συμβουλή. ES: En caso de contacto con los ojos, lávense inmediata y abundantemente con agua y acúdase a un médico. FR: En cas de contact avec les yeux, laver immédiatement et abondamment avec de l'eau et consulter un spécialiste. IT: In caso di contatto con gli occhi, lavare immediatamente e abbondantemente con acqua e consultare un medico. NL: Bij aanraking met de ogen onmiddellijk met overvloedig water afspoelen en deskundig medisch advies inwinnen. PT: Em caso de contacto com os olhos, lavar imediata e abundantemente com água e consultar um especialista. SV: id kontakt med ögonen, spola genast med mycket vatten och kontakta läkare.</p>
--	---

S28

EN: After contact with skin, wash immediately with plenty of water.

DA: Kommer stof på huden vaskes straks med store mængder ... (angives af fabrikanten).

DE: Bei Berührung mit der Haut sofort abwaschen mit viel ... (vom Hersteller anzugeben).

EL: Σε περίπτωση επαφής με το δέρμα, πλυθείτε αμέσως με άφθονο ... (το είδος του υγρού καθορίζεται από τον παραγωγό).

ES: En caso de contacto con la piel, lávese inmediata y abundantemente con ... (productos a especificar por el fabricante).

FR: Après contact avec la peau, se laver immédiatement et abondamment avec ... (produits appropriés à indiquer par le fabricant).

IT: In caso di contatto con la pelle lavarsi immediatamente ed abbondantemente con ... (prodotti idonei da indicarsi da parte del fabbricante).

NL: Na aanraking met de huid onmiddellijk wassen met veel ... (aan te geven door de fabrikant).

PT: Após contacto com a pele, lavar imediata e abundantemente com ... (produtos adequados a indicar pelo produtor).

SV: Vid kontakt med huden tvätta genast med mycket ... (anges av tillverkaren).

S36/37/39

EN: Wear suitable protective clothing, gloves and eye/face protection.

DA: Brug særligt arbejdstøj, egnede beskyttelseshandsker og -briller/ansigtsskærm.

DE: Bei der Arbeit geeignete Schutzkleidung, Schutzhandschuhe und Schutzbrille/Gesichtsschutz tragen.

EL: Φοράτε κατάλληλη προστατευτική ενδυμασία, γάντια και συσκευή προστασίας ματιών/προσώπου

ES: Úsense indumentaria y guantes adecuados y protección para los ojos/la cara.

FR: Porter un vêtement de protection approprié, des gants et un appareil de protection des yeux/du visage.

IT: Usare indumenti protettivi e guanti adatti e proteggersi gli occhi/la faccia.

NL: Draag geschikte beschermende kleding, handschoenen en een beschermingsmiddel voor de ogen/het gezicht.

PT: Usar vestuário de protecção, luvas e equipamento protector para os olhos /face adequados.

SV: Använd lämpliga skyddskläder, skyddshandskar samt skyddsglasögon eller ansiktsskydd.

S45

EN: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

DA: Ved ulykkestilfælde eller ved ildebefindende er omgående lægebehandling nødvendig; vis etiketten, hvis det er muligt.

DE: Bei Unfall oder Unwohlsein sofort Arzt zuziehen (wenn möglich, dieses Etikett vorzeigen).

EL: Σε περίπτωση ατυχήματος ή αν αισθανθείτε αδιαθεσία ζητήστε αμέσως ιατρική συμβουλή (δείξτε την ετικέτα αν είναι δυνατό).

ES: En caso de accidente o malestar, acúdase inmediatamente al médico (si es posible, muéstresele la etiqueta).

FR: En cas d'accident ou de malaise, consulter immédiatement un medecin (si possible lui montrer l'etiquette).

IT: In caso di incidente o di malessere consultare immediatamente il medico (se possibile, mostrargli l'etichetta).

NL: Bij een ongeval of indien men zich onwel voelt, onmiddellijk een arts raadplegen (indien mogelijk hem dit etiket tonen).

PT: Em caso de acidente ou de indisposição, consultar imediatamente o médico (se possível mostrar-lhe o rótulo).

SV: Vid olycksfall, illamående eller annan påverkan, kontakta omedelbart läkare. Visa om möjligt etiketten.

Section 16. Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. ScyTek Laboratories shall not be held liable for any damage resulting from handling or from contact with the above product.