




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

1.1 Product Identifier	Product Name: AEC Substrate Product Number: ACE	
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 Classification: Regulation (EC) No 1272/2008 (CLP)	Acute toxicity, Oral (Category 4) – H302 Skin irritation (Category 2) – H315 Eye irritation (Category 2) – H320	
Classification: OSHA 29 CFR 1910.1200 HCS	Acute toxicity, Oral (Category 4) – H302 Skin irritation (Category 2) – H315 Eye irritation (Category 2) – H320	
Classification: Directive 1999/45/EC		Xi R39/23/24/25, S7, S36/37, S45 EN: Irritant DA: Lokalirriterende DE: Reizend EL: Ερεθιστικό ES: Irritante FR: Irritant IT: Irritante NL: Irriterend PT: Irritante SV: Irriterande For full text of R- & S- phrases: see Section 15.





2.2 Label Elements	Pictogram(s):  Signal word: Warning Hazard statement(s): H303 – May be harmful if swallowed. H371 – May cause damage to organs H315 – Causes skin irritation H320 – Causes eye irritation Precautionary statement(s): P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P305 + P351 + P313 - IF IN EYES: Rinse cautiously with water for several minutes. Get medical attention/advice. P301 + P315 - IF SWALLOWED: Get immediate medical advice/attention								
NFPA Scale: 0-4									
HMIS (U.S.A.) Scale: 0-4	<table border="1" style="width: 100%;"> <tr> <td style="background-color: #ADD8E6;">HEALTH</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="background-color: #FF0000;">FLAMMABILITY</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="background-color: #FFD700;">PHYSICAL HAZARD</td> <td style="text-align: center;">0</td> </tr> <tr> <td>PERSONAL PROTECTION</td> <td style="text-align: center;">C</td> </tr> </table>	HEALTH	1	FLAMMABILITY	1	PHYSICAL HAZARD	0	PERSONAL PROTECTION	C
HEALTH	1								
FLAMMABILITY	1								
PHYSICAL HAZARD	0								
PERSONAL PROTECTION	C								
2.3 Other Hazards	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 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	%
Methanol	67-56-1	200-659-6	 Danger. 3 H225 Highly flammable liquid and vapour.  Danger. 3. H301 Toxic if swallowed. 3 H311 Toxic in contact with skin. 3 H331 Toxic if inhaled.  Danger. 1 H370 Causes damage to organs.	≤ 8
DMSO Dimethyl Sulfoxide	67-68-5	200-664-3	 Warning. 4 H226 Flammable liquid and vapour.	≤ 8

Urea Hydrogen Peroxide	124-43-6	204-701-4	 Danger. 1B H314 Causes severe skin burns and eye damage.  Danger. 2 H272 May intensify fire; oxidizer.	≤ 0.06
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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	No unusual fire or explosive hazards expected
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 2-8°C.

7.3 Specific end use(s).
See section 1.2

Section 8. Exposure Controls / Personal Protection

8.1 Control parameters	<p>Exposure Limits: Methanol: NIOSH REL: TWA 200 ppm (260 mg/m³) ST 250 ppm (325 mg/m³) [skin] OSHA PEL: TWA 200 ppm (260 mg/m³) ACGIH TLV: TWA 200 ppm (262 mg/m³) STEL 250 ppm (328 mg/m³)</p>
8.2 Exposure controls	<p>Personal Protective Equipment (PPE): Eye/Face protection. Safety glasses or goggles are required. Skin protection. Protective clothing is required. 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. Respiratory protection. Avoid breathing vapor. 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	Colorless
Odor	Odorless
Odor Threshold	Unknown
pH	5.0 ± 0.1
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. Strong acids. Halogens.
10.6 Hazardous Decomposition Materials	Formaldehyde, Sulfur dioxide, Methyl mercaptan, Carbon monoxide.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects.	<p>Acute Toxicity. Methanol: <u>Oral LD50</u> LDLO Oral - Human - 143 mg/kg LD50 Oral - rat - 1,187 - 2,769 mg/kg <u>Inhalation LC50</u> LC50 Inhalation - rat - 4 h - 128.2 mg/l LC50 Inhalation - rat - 6 h - 87.6 mg/l <u>Dermal LD50</u> LD50 Dermal - rabbit - 17,100 mg/kg</p> <p>DMSO, Dimethyl Sulfoxide: LD50 Oral - rat - 14,500 mg/kg LC50 Inhalation - rat - 4 h - 40250 ppm LD50 Dermal - rabbit - > 5,000 mg/kg</p> <p>Skin Corrosion/Irritation. Irritating to skin and mucous membranes.</p> <p>Serious Eye Damage/Irritation. Irritating to the eyes.</p> <p>Respiratory or skin sensitization. No relevant data available.</p> <p>Germ Cell Mutagenicity. No relevant data available.</p>
Carcinogenicity.	<p>International Agency for Research on Cancer (IARC). None of the components are listed.</p> <p>National Toxicology Program (NTP). None of the components are listed.</p>

Section 12. Ecological Information

12.1 Toxicity	<p>Fish: No relevant studies identified.</p> <p>Crustacea: No relevant studies identified.</p> <p>Algae/Aquatic Plants: No relevant studies identified.</p>
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	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: Not dangerous goods ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods
14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR	ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods DOT: Not dangerous goods
14.3 Transport Hazard Class(es)	DOT: Not dangerous goods IATA: Not dangerous goods IMDG: Not dangerous goods ADR/RID: Not dangerous goods
14.4 Packing Group DOT, IATA,IMDG, ADR	ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods DOT: Not dangerous goods
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	Methanol is listed as a having developmental toxicity.

Right To Know Components	<p>Methanol Massachusetts Pennsylvania New Jersey</p> <p>DMSO Dimethyl Sulfoxide Pennsylvania New Jersey</p> <p>Urea Hydrogen Peroxide Pennsylvania New Jersey</p>
Other Regulations	Methanol is listed under SARA 313
15.2 Chemical Safety Assessment	No Chemical Safety Assessment has been carried out for this substance/mixture by ScyTek Laboratories, Inc.
R phrases	<p>R39/23/24/25 EN: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. DA: Giftig: fare for varig alvorlig skade på helbred ved indånding, hudkontakt og indtagelse. DE: Giftig: ernste Gefahr irreversiblen Schadens durch Einatmen, Berührung mit der Haut und durch Verschlucken. EL: Τοξικό: κίνδυνος πολύ σοβαρών μόνιμων επιδράσεων όταν εισπνέεται, σε επαφή με το δέρμα και σε περίπτωση καταπόσεως. ES: Tóxico: peligro de efectos irreversibles muy graves por inhalación, contacto con la piel e ingestión. FR: Toxique: danger d'effets irréversibles très graves par inhalation, par contact avec la peau et par ingestion. IT: Tossico: pericolo di effetti irreversibili molto gravi per inalazione, a contatto con la pelle e per ingestione. NL: Vergiftig: gevaar voor ernstige onherstelbare effecten bij inademing, aanraking met de huid en opname door de mond. PT: Tóxico: perigo de efeitos irreversíveis muito graves por inalação, em contacto com a pele e por ingestão. SV: Giftigt: risk för mycket allvarliga bestående hälsoskador vid inandning, hudkontakt och förtäring.</p>
S phrases	<p>S1/2 EN: Keep locked up and out of the reach of children. DA: Opbevares under lås og utilgængeligt for børn. DE: Unter Verschluss und für Kinder unzugänglich aufbewahren. EL: Φυλάξτε το κλειδωμένο και μακριά από παιδιά. ES: Consérvese bajo llave y manténgase fuera del alcance de los niños. FR: Conserver sous clef et hors de portee des enfants. IT: Conservare sotto chiave e fuori della portata dei bambini. NL: Achter slot en buiten bereik van kinderen bewaren. PT: Guardar fechado à chave e fora do alcance das crianças. SV: Förvaras i låst utrymme och oåtkomligt för barn.</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>S36/37 EN: Wear suitable protective clothing and gloves. DA: Brug særligt arbejdstøj og egnede beskyttelseshandsker. DE: Bei der Arbeit geeignete Schutzhandschuhe und Schutzkleidung tragen. EL: Φοράτε κατάλληλη προστατευτική ενδυμασία και γάντια. ES: Úsense indumentaria y guantes de protección adecuados. FR: Porter un vêtement de protection et des gants appropriés. IT: Usare indumenti protettivi e guanti adatti. NL: Draag geschikte handschoenen en beschermende kleding. PT: Usar vestuário de protecção e luvas adequadas. SV: Använd lämpliga skyddskläder och skyddshandskar.</p> <p>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 επικήτα 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.</p>
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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.