

SAFETY DATA SHEET

This MSDS complies with the Globally Harmonized System

A VOC-EXEMPT SOLVENT ALTERNATIVE TO XYLENE, TOLUENE, PARACHLOROBENZOTRIFLUORIDE (PCBTF / OXSOL 100) AND TERTIARY BUTYL ACETATE

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product Name: EcoSol 110
Product Code: ESL110
Synonyms: N/A
REACH Registration Number: The materials in this product have been registered according to Regulation (EC) 1907/2006.

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

General use: Solvent alternative for coatings, paints, inks, adhesives, cleaning, stripping

1.3 Details of the supplier and of the safety data sheet

Manufacturer/Distributor:

YSR

5807 N Andrews Way

Fort Lauderdale, FL 33309

U S A

Telephone: +1 954 588 4408

Fax: +1 954-343-1117

Email: info@ysronline.net

Date: 28 May 2014

1.4 Emergency telephone number: For product information: +1 954 566 0996

Available during normal business hours from 9:00 AM to 5:30 PM EST

USA:

SECTION 2 – HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture:

Classification (REGULATION (EC) No 1272/2008)

Flammable liquid, Category 2, H225 (Highly flammable liquid and vapour)

Eye Irritant. 2, H319 (Causes serious eye irritation)

Specific target organ toxicity - single exposure (Category 3)

Classification (REGULATION (EC) No 1272/2008)

F - Highly Flammable



Xi – Irritant



2.2 Label Elements:

Labeling (REGULATION (EC) No 1272/2008)



Hazard Symbol:

Signal Word: Danger

Hazard Statement(s): H225 - Flammable liquid and vapour.

Precautionary Statements:

- P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P233 - Keep container tightly closed.
- P240 - Ground/bond container, receiving and manufacturing equipment.
- P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
- P242 - Use only non-sparking, non-conductive tools.
- P243 - Take precautionary measures against static discharge.
- P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
- P270 - Do not eat, drink or smoke when using this material.
- P271 - Use outdoors or in a well-ventilated area only.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- H302 - Harmful if swallowed.
- H319 - Causes serious eye irritation.
- H332 - Harmful if inhaled.
- P303+P361+P353 – Exposure to skin/hair: remove all contaminated clothing immediately. Rinse skin/hair with water/shower.
- P305+P351+P338 - If splashed or contact made with eyes, remove contact lenses or glasses if easy to do so and rinse eyes with caution. Rinse eyes cautiously with water for several minutes.
- P370+P378 - In case of fire, use water fog, foam, dry chemical or carbon dioxide to extinguish.
- P403+P235 - Store in well-ventilated place. Keep cool.
- P501 - Dispose of contents in accordance with local/provincial/state/federal regulations.

Labeling (67/548/EEC to 1999/45/EC)

F - Highly flammable. Xi – Irritant.

Risk Phrases R11 - Highly flammable.
R20/22 - Harmful by inhalation and if swallowed.
R36 - Irritating to eyes.
R66 - Repeated exposure may cause skin dryness or cracking.
R67 - Continued exposure to vapours may cause drowsiness and dizziness.

Safety Phrases S2 - Keep out of reach of children.
S9 - Keep container in a well-ventilated place.
S16 - Keep away from sources of ignition.
S24/25 - Avoid contact with skin and eyes.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S33 - Take precautionary measures against static discharges.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

% by weight	Ingredient	CAS Number	PEV	TLV
<20%	PROPRIETARY INGREDIENTS		None established	None established
>80%	Methyl acetate	79-20-9	200 ppm	200 ppm

SECTION 4 – FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: If product vapours cause respiratory irritation or distress move exposed person to fresh air immediately using appropriate rescuer protective equipment. If breathing is difficult or irregular, administer supplemental oxygen or artificial respiration by trained personnel. Seek emergency medical attention.

Eyes: Immediately flush eyes with large amounts of water for a minimum of 15 minutes. (If possible, remove contact lenses or glasses and continue to rinse eyes). Seek urgent medical attention.

Skin: Remove contaminated clothing. Wash area with soap and water. Wash contaminated clothing and footwear thoroughly prior to reuse.

Ingestion: Rinse mouth with water. Do not induce vomiting. Give nothing by mouth. Seek emergency medical attention.

4.2 Most important symptoms and effects both acute and delayed

Potential health symptoms and effects

Eyes: Redness. Mild irritation. Itching and/or tearing may indicate more severe eye exposure.

Skin: May cause mild irritation or dermatitis. Should not cause allergic skin reaction. A single, prolonged exposure is not likely to result in material being absorbed in harmful amounts.

Inhalation: May cause respiratory irritation, nausea, drowsiness, inebriation, unconsciousness, and central nervous system depression. Vapours may cause dizziness or respiratory distress.

*** Deliberate inhalation of vapours may cause serious illness ***

Chronic: No information available.

SECTION 5 – FIRE FIGHTING MEASURES

5.1 Extinguishable media

Suitable methods of extinguishing: For small fires, use media such as "alcohol foam", dry chemical, carbon dioxide. For large fires apply water from as far away as possible. Use very large volumes (flood) of water. Water mist or spray, streams or jets may be ineffective.

5.2 Special hazards arising from the substance or mixture

Unsuitable methods of extinguishing: No limitation of extinguishing agents are provided for the material.

Combustible material. Vapours are heavier than air and may spread along floors. May form explosive mixtures with air at ambient temperatures. Pay attention to flashback. Development of hazardous combustion gases or vapours is possible in the event of a fire. Symptoms of overexposure to these gases may not be apparent. Seek medical advice.

5.3 Advice for firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure build-up and possible auto ignition or explosion when exposed to extreme heat. If possible, firefighters should control run-off water to prevent environmental contamination.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear appropriate protective clothing designated in Section 8. Remove all sources of ignition. Ventilate the area.

6.2 Environmental precautions

Avoid dispersal of spilled material or run-off and prevent contact with soil and entry into drains, sewers or waterways. Risk of explosion.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, contain and pump off spills. Cover with a large quantity of inert absorbent. Collect product using non-sparking/non-conductive tools and place into approved container for proper disposal. Observe possible material restrictions (sections 7.2 and 10.5). Clean contaminated area with soap and water.

6.4 Reference to other sections

For indications about waste treatment, see section 13.

SECTION 7 – HANDLING AND STORAGE

7.1 Precautions for safe handling

Observe label precautions. Wear all appropriate protective equipment specified in Section 8. Keep containers closed when not in use.

7.2 Advice on protection against fire and explosion

Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

7.3 Conditions for safe storage, including any incompatibilities

Keep in cool, dry, ventilated storage areas in closed containers. Transfer only to approved containers displaying correct labeling. Containers that have been opened should be carefully resealed and kept upright to prevent leakage. Do not take internally. Keep out of reach of children.

Incompatible materials: acids, bases.

Storage temperature: >10 °C.

Packaging materials: Ordinary steel.

7.4 Specific end uses

Apart from the uses mentioned in section 1.2, no other specific uses are stipulated.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

See Permissible Exposure Values (PEV) and Threshold Limit Values (TLV) in section 3.

8.2 Exposure controls

Engineering measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. See section 7.1.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. Inquiries regarding the chemical resistance of the protective equipment should be directed to the representative supplier.

Hygiene measures: Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use,

before eating, drinking or using the lavatory.

Eye/face protection: Wear protective goggles or safety glasses with un-perforated side shields during use. Refer to 29 CFR 1910.133, ANSI Z87.1 or European Standard EN 166.

Hand protection: Wear gloves recommended by glove supplier for protection against materials in section 3. Gloves should be impermeable to chemicals and oil and be chemically resistant. Breakthrough time of selected gloves must be greater than the intended use period. Neoprene, nitrile rubber or butyl rubber gloves with cuffs are recommended.

Other protective equipment: Flame retardant, anti-static protective clothing.

Respiratory protection: None required with normal use. Always use an approved respirator when vapour / aerosols are generated. Where risk assessment shows air-purifying respirators are appropriate use a full-faced respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure controls: Do not empty into drains. Risk of explosion.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear liquid	Auto ignition temperature	496.15 °C (925.07 °F)
Odour	Mild, acetic	Flashpoint	4 °C (39 °F)
Density (@25 °C)	1.004 g/ml (8.36 lb/gal)	Lower Explosive Limit (LEL)	2.77 %
Specific Gravity	1.004	Upper Explosive Limit (UEL)	13.39 %
Viscosity, Dynamic	0.45 cP	Vapour density (air=1)	3.14 mmHg
Initial boiling point	70 °C (158 °F)	Vapour pressure (20 °C)	137.65 mm Hg
Freezing point	-88.74 °C (-127.73 °F)	Solubility in water	21.16%
pH	Not applicable	Evaporation rate (BuAc = 1)	5.14
VOC	VOC/NPRI Exempt (Canada & US)		
Measurement of Incremental Reactivity (MIR)		0.078 g ozone / g of organics	

9.2 Other data No data available

SECTION 10 – STABILITY AND REACTIVITY

10.1 Reactivity

Vapours may form explosive mixture with air.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reacts violently with oxidants and potassium tert-butoxide and may cause a fire hazard.

Air contact may form hazardous compounds.

The substance decomposes on burning producing irritating fumes.

10.4 Conditions to avoid

Air, heat, flames and sparks.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Thermal decomposition products include oxides of carbon, hydrocarbons, fumes and smoke. On contact with air, Benzaldehyde may be produced.

SECTION 11 – TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Oral Toxicity

Product: Not available
Specified substance: Methyl acetate
LD50 rat: >6,000 mg/kg (highest dose tested)

Acute inhalation toxicity

Product: Not available
Specified substance: Methyl acetate
LC50 rat: >50 mg/l; 4 h (highest dose tested)
Symptoms: Nausea, headache and vomiting. Material is irritating to mucous membranes and upper respiratory tract.

Acute dermal toxicity

Product: Not available
Specified substance: Methyl acetate
LC50 rabbit: >2,000 mg/l (highest dose tested)

Skin irritation

Product: Not available
Specified substance: Methyl acetate
Rabbit: Result: No irritation

Eye irritation

Product: Not available
Specified substance: Methyl acetate
Rabbit: Result: Moderate irritation

Sensitization

Product: Not available
Specified substance: Methyl acetate
Patch test: Human. Result: Negative

Genotoxicity in vitro

Product: Not available
Specified substance: Methyl acetate
Not available

Mutagenicity

Product: Not available
Specified substance: Methyl acetate
Not available

Specific organ toxicity - single exposure

Product: Not available
Specified substance: Methyl acetate
Not available

Specific organ toxicity - repeated exposure

Product: Not available
Specified substance: Methyl acetate

Not available

Aspiration hazard

Product: Not available
Specified substance: Methyl acetate
Not available

11.2 Further information

Absorption of large quantities may cause nausea, inebriation, unconsciousness, and respiratory arrest.

Further data: Handle in accordance with good industrial hygiene and safety practice.

No component of this product is present at levels greater than or equal to 0.1% is identified as a probable, possible, potential or confirmed carcinogen by ACGIH, IARC, NTP or OSHA. RTECS: FG0450000.

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity

Acute toxicity

Fish

Product: No data available
Specified substance: Methyl acetate
LC-50 (Fathead Minnow, 96 h): 320 - 399 mg/l

Aquatic invertebrates

Product: No data available.

Specified substance: Methyl acetate
EC-50 (daphnid, 48 h): 1,027 mg/l

Chronic Toxicity

Fish

Product: No data available
Specified substance: Methyl acetate
No data available.

Aquatic invertebrates

Product:

Specified substance(s): No data available
Methyl acetate

No data available.

Toxicity to Aquatic Plants

Product:

Specified substance: No data available
Methyl acetate
EC-50 (Selenastrum capricornutum, 72 h): > 120 mg/l

12.2 Persistence and degradability

Biodegradation

Product:

Specified substance: No data available.
Methyl acetate
70 % (28 d)

Biological Oxygen Demand

Product:

Specified substance: No data available
Methyl acetate
No data available.

Chemical Oxygen Demand

Product:

Specified substance: No data available
Methyl acetate
No data available.

BOD/COD ratio
Product: No data available
Specified substance: Methyl acetate
No data available.

12.3 Bioaccumulative potential

Product: No data available
Specified substance: Methyl acetate
No data available.

12.4 Results of PBT and vPvB assessment: No data available
Methyl acetate No data available

12.5 Other adverse effects: No data available

SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of waste and residues in accordance with local/provincial/state/federal authorities.

The generation of waste should be avoided or minimized whenever possible.

Although this product is classified as non-hazardous under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261 this material and its container should be disposed of in the safest manner. Empty containers may contain product residue.

Leave chemicals in original containers. Avoid mixing with other waste.

Handle unclean containers in a manner similar to handling the product itself.

Incinerate in an approved facility. Do not incinerate closed container.

Dispose of in accordance with the Directive 2008/98/EC as well as other national, federal, state/provincial and local laws and regulations.

SECTION 14 – TRANSPORT INFORMATION

Important Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

DOT

Possible Shipping Description(s):
UN 1231 Methyl acetate 3 II

IMDG - International Maritime Dangerous Goods Code

Possible Shipping Description(s):
UN 1231 Methyl acetate 3 II

IATA

Possible Shipping Description(s):
UN 1231 Methyl acetate 3 II

SECTION 15 – REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

U.S Federal regulations

OSHA Hazard communication standard: This material contains hazardous chemicals as defined by the OSHA Hazard Communication Standard (28 CFR 1910.1200).

TSCA (US Toxic Substances Control Act): All components of this product are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

Superfund Amendments and Reauthorization Act (SARA)

SARA 311-312 Hazard Classification(s):

immediate (acute) health hazard.

fire hazard.

SARA 313 Information:

None of the chemicals in this product are subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to Know Act of 1986.

SARA 302/304/311/312 Extremely Hazardous Substance:

No components of the product are subject to the reporting requirements of these sections of Title III of SARA.

SARA 302/304 Emergency Planning & Notification:

No components of the product are subject to the reporting requirements of these sections of Title III of SARA.

Comprehensive Response Compensation and Liability Act (CERCLA)

No components of this product are listed as hazardous substances.

Clean Air Act (CAA)

This product does not contain any chemicals that are listed as Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).

This product does not contain any Class 1 Ozone depleters.

This product does not contain any Class 2 Ozone depleters.

Clean Water Act (CWA)

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

U.S. State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986:

This product contains no chemical(s) known to the state of California to cause cancer or other reproductive harm.

Canada

WHMIS (Canada) Status: controlled

WHMIS (Canada) Hazard Classification: B/2, D/2/B

Canadian Controlled Products Regulations (CPR):

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

Canadian Domestic Substances List / Non-Domestic Substances List (DS/NDSL):

Components of this product identified by CAS number are listed on the DSL.

Canadian Ingredient Disclosure List (IDL): This material is not listed on the IDL.

Canadian National Pollutant Release Inventory (NPRI):

Products Regulations, and the SDS contains all the information required by the Controlled Products Regulations.

This material is not listed on the NPRI.

European Economic Community
Labeling Symbol and Classification

F - Highly Flammable



XN - Harmful by inhalation and if swallowed



Xi - Irritant



Risk Phrases R11 - Highly flammable.
R20/22 - Harmful by inhalation and if swallowed.
R36 - Irritating to eyes.
R66 - Repeated exposure may cause skin dryness or cracking.
R67 - Vapours may cause drowsiness and dizziness.

Safety Phrases S2 - Keep out of reach of children.
S9 - Keep container in a well-ventilated place.
S16 - Keep away from sources of ignition.
S24/25 - Avoid contact with skin and eyes.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S33 - Take precautionary measures against static discharges.
S36/37/39 - Wear suitable protective clothing, chemical resistant gloves and eye/face protection.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme):

The components of this product are listed on AICS or otherwise comply with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances):

The components of this product are listed in the Handbook or have been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act):

The components of this product are listed on the Korean inventory or otherwise comply with the Korean Toxic Substances Control Act.

Philippines Inventory (PICCS):

The components of this product are listed on the Philippine Inventory or otherwise complies with PICCS.

Inventory of Existing Chemical Substances in China:

All components of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

For this product a chemical safety assessment was not carried out.

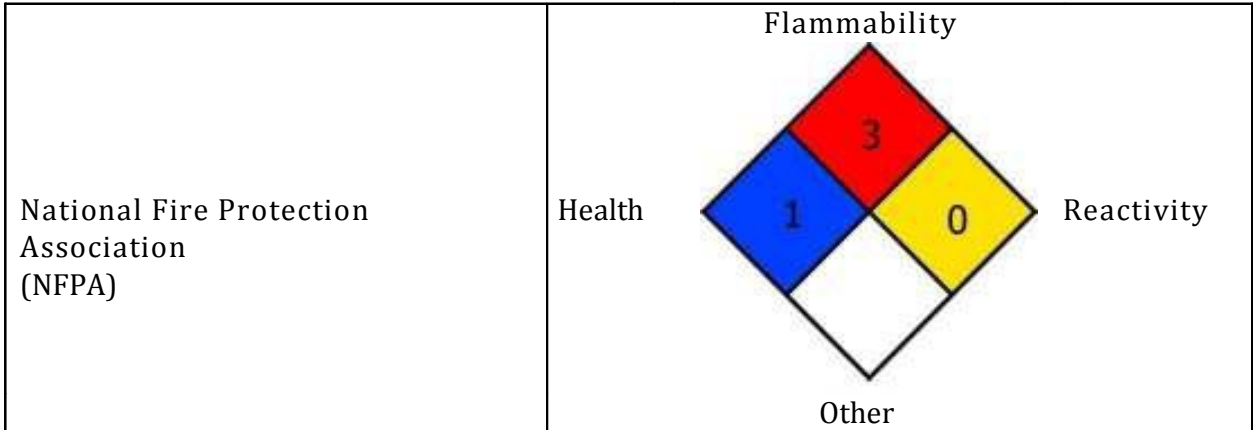
15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 – OTHER INFORMATION

Hazardous Material Information System (HMIS):	Health	1
	Flammability	3
	Physical Hazard	0
	Personal Protection	B

HMIS HAZARD RATING LEGEND	
* = Chronic Health Hazard	2 = MODERATE
0 = INSIGNIFICANT	3 = HIGH
1 = SLIGHT	4 = EXTREME



Safety Glasses



Gloves



Protective Apron

The information herein is given in good faith and is believed to be accurate and correct. However, no warranty, expressed or implied, is made. TBF Environmental Technology Inc. assumes no responsibility for personal injury or property damage that may arise from the use of this material since the conditions of handling and use are beyond our control. It is the responsibility of the user to comply with all federal, state, provincial and local laws and regulations regarding use of this product. Vendees or users assume all risks associated with the use of this material.