SAFETY DATA SHEET

Creation Date 06-Jun-2014 **Revision Date** 24-Dec-2021 **Revision Number** 5

1. Identification

Product Name **ScintiSafe™ Econo 2 Cocktail (Scintanalyzed)**

Cat No. : **SX21-5**

Synonyms No information available

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1
Carcinogenicity	Category 2
Aspiration Toxicity	Category 1

Label Elements

Signal Word
Danger

Hazard Statements
May be fatal if swallowed and enters airways
Causes skin irritation
Causes serious eye damage
Suspected of causing cancer

Precautionary Statements
Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Response
IF exposed or concerned: Get medical attention/advice
Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Skin
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
Ingestion
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Do NOT induce vomiting
Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
Harmful to aquatic life with long lasting effects
Other hazards
Contains a known or suspected endocrine disruptor.

3. Composition/Information on Ingredients

Component	CAS No	Weight %
Benzene, C10-13-alkyl derivitives	67774-74-7	60-80
Dioctyl sodium sulfosuccinate	577-11-7	10-20
Tributyl phosphate	126-73-8	2.5-10
Ethylene oxide-Nonylphenol polymer	9016-45-9	2.5-10
Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy-, branched, phosphates	68412-53-3	<=2.5
Oxazole, 2,5-diphenyl-	92-71-7	<=2.5
Benzene, 1,4-bis[2-(2-methylphenyl)ethenyl]-	13280-61-0	<=2.5

4. First-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

	Immediate medical attention is required.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur. Risk of serious damage to the lungs (by aspiration).
Ingestion	Do NOT induce vomiting. Get medical attention if symptoms occur. Call a physician or poison control center immediately. If vomiting occurs naturally, have victim lean forward.
Most important symptoms and effects	Causes eye burns.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.
Unsuitable Extinguishing Media	No information available
Flash Point	150 °C / 302 °F
Method -	No information available
Autoignition Temperature	400 °C / 752 °F

Explosion Limits

Upper	9.0 vol %
Lower	1.0 vol %
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products
Carbon monoxide (CO). Carbon dioxide (CO_2). Sulfur oxides.
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
2	1	0	N/A

6. Accidental release measures

Personal Precautions	Use personal protective equipment as required. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing.
Environmental Precautions	Avoid release to the environment. See Section 12 for additional Ecological Information. Do not flush into surface water or sanitary sewer system. Collect spillage.
Methods for Containment and Clean Up	Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid

contact with skin, eyes or clothing. Avoid ingestion and inhalation.

Storage. Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents. Strong acids. Strong bases.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Tributyl phosphate	TWA: 5 mg/m³	(Vacated) TWA: 0.2 ppm (Vacated) TWA: 2.5 mg/m³ TWA: 5 mg/m³	IDLH: 30 ppm TWA: 0.2 ppm TWA: 2.5 mg/m³	TWA: 0.2 ppm

Legend

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Liquid
Appearance	Colorless
Odor	Characteristic
Odor Threshold	No information available
pH	Not applicable
Melting Point/Range	-70 °C / -94 °F
Boiling Point/Range	271 - °C / 519.8 - 644 °F
Flash Point	150 °C / 302 °F
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	9.0 vol %
Lower	1.0 vol %
Vapor Pressure	No information available
Vapor Density	No information available
Specific Gravity	0.9
Solubility	Immiscible with water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	400 °C / 752 °F
Decomposition Temperature	No information available
Viscosity	No information available

VOC Content(%) 2.5-10

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products. Excess heat.

Incompatible Materials Strong oxidizing agents, Strong acids, Strong bases

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO_2), Sulfur oxides

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Oral LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Dermal LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Vapor LC50 Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Benzene, C10-13-alkyl derivitives	LD50 > 5000 mg/kg (Rat)	LD50 > 10200 mg/kg (Rabbit)	Not listed
Dioctyl sodium sulfosuccinate	>3100 mg/kg (Rat)	>10000 mg/kg (Rabbit)	>20.0 mg/L/4h (Rat)
Tributyl phosphate	LD50 = 1390 mg/kg (Rat)	LD50 > 10000 mg/kg (Rabbit)	LC50 = 1.359 mg/L (Rat) 4 h
Ethylene oxide-Nonylphenol polymer	LD50 = 2590 mg/kg (Rat)	LD50 = 1780 µL/kg (Rabbit)	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Severe eye irritant; Irritating to skin

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Benzene, C10-13-alkyl derivitives	67774-74-7	Not listed	Not listed	Not listed	Not listed	Not listed
Dioctyl sodium sulfosuccinate	577-11-7	Not listed	Not listed	Not listed	Not listed	Not listed
Tributyl phosphate	126-73-8	Not listed	Not listed	A3	Not listed	Not listed
Ethylene oxide-Nonylphenol polymer	9016-45-9	Not listed	Not listed	Not listed	Not listed	Not listed
Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy-, branched, phosphates	68412-53-3	Not listed	Not listed	Not listed	Not listed	Not listed
Oxazole, 2,5-diphenyl-	92-71-7	Not listed	Not listed	Not listed	Not listed	Not listed
Benzene, 1,4-bis[2-(2-methylphe	13280-61-0	Not listed	Not listed	Not listed	Not listed	Not listed

nyl)ethenyl]-						

ACGIH: (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen
ACGIH: (American Conference of Governmental Industrial Hygienists)

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known
STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed No information available

Endocrine Disruptor Information

Component	EU - Endocrine Disrupters Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Ethylene oxide-Nonylphenol polymer	Group III Chemical	Not applicable	Not applicable

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

The product contains following substances which are hazardous for the environment. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Contains a substance which is:. Toxic to aquatic organisms. Very toxic to aquatic organisms.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Benzene, C10-13-alkyl derivitives	Not listed	Not listed	Not listed	EC50: 0.009 - 0.08 mg/L, 48h (Daphnia magna)
Dioctyl sodium sulfosuccinate	Not listed	20-40 mg/L LC50 96 h 37 mg/L LC50 96 h 24 mg/L LC50 96 h	Not listed	36 mg/L EC50 = 48 h
Tributyl phosphate	EC50: = 4.4 mg/L, 96h (Pseudokirchneriella subcapitata) EC50: = 1.1 mg/L, 72h (Desmodesmus subspicatus)	LC50: = 8.18 mg/L, 96h (Pimephales promelas) LC50: = 4.5 mg/L, 96h (Oryzias latipes) LC50: = 9.6 mg/L, 96h static (Oryzias latipes) LC50: 1.0 - 10.0 mg/L, 96h static (Pimephales promelas) LC50: = 4.2 mg/L, 96h static (Oncorhynchus mykiss) LC50: = 13 mg/L, 96h flow-through (Oncorhynchus mykiss) LC50: 7.66 - 8.74 mg/L, 96h flow-through (Pimephales promelas)	Not listed	EC50: 1.58 - 8.43 mg/L, 48h Static (Daphnia magna)

Persistence and Degradability Immiscible with water

Bioaccumulation/ Accumulation No information available.

Mobility Is not likely mobile in the environment due its low water solubility.

Component	log Pow
Tributyl phosphate	2.5

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Benzene, C10-13-alkyl derivitives	67774-74-7	X	ACTIVE	-
Dioctyl sodium sulfosuccinate	577-11-7	X	ACTIVE	-
Tributyl phosphate	126-73-8	X	ACTIVE	-
Ethylene oxide-Nonylphenol polymer	9016-45-9	X	ACTIVE	SP
Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy-, branched, phosphates	68412-53-3	X	ACTIVE	XU
Oxazole, 2,5-diphenyl-	92-71-7	X	ACTIVE	-
Benzene, 1,4-bis[2-(2-methylphenyl)ethenyl]-	13280-61-0	X	ACTIVE	-

Legend:
TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed
SP - Indicates a substance that is identified in a proposed SNUR
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)

TSCA 12(b) - Notices of Export

Component	CAS No	**TSCA 12(b)** - Notices of Export
Ethylene oxide-Nonylphenol polymer	9016-45-9	Section 5

International Inventories
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Benzene, C10-13-alkyl derivitives	67774-74-7	X	-	267-051-0	X	-		X	X	KE-02156
Dioctyl sodium sulfosuccinate	577-11-7	X	-	209-406-4	X	X	X	X	X	KE-32402
Tributyl phosphate	126-73-8	X	-	204-800-2	X	X	X	X	X	KE-34036
Ethylene oxide-Nonylphenol polymer	9016-45-9	X	-	-	X	X	X	X	X	KE-26244
Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy-, branched, phosphates	68412-53-3	X	-	-	X	-		X	X	99-3-1253
Oxazole, 2,5-diphenyl-	92-71-7	X	-	202-181-3	X	X	X	X	X	KE-12092

Benzene, 1,4-bis[2-(2-methylphenyl)ethenyl]-	13280-61-0	X	-	236-285-5	-	-		-	X	KE-03298

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313 Not applicable

Component	CAS No	Weight %	SARA 313 - Threshold Values %
Ethylene oxide-Nonylphenol polymer	9016-45-9	2.5-10	1.0

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Tributyl phosphate	X	X	X	X	X

U.S. Department of Transportation
Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade Slight risk, Grade 1

Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Tributyl phosphate	-	Use restricted. See item 75. (see link for restriction details)	-
Ethylene oxide-Nonylphenol polymer	-	Use restricted. See item 46[b]. (see link for restriction details) Use restricted. See item 46a. (see link for restriction details)	SVHC Candidate list - 500-024-6; 932-998-7 - Endocrine disrupting properties, Article 57f - environment

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

https://echa.europa.eu/authorisation-list
https://echa.europa.eu/substances-restricted-under-reach
https://echa.europa.eu/candidate-list-table

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

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Benzene, C10-13-alkyl derivitives	67774-74-7	Listed	Not applicable	Not applicable	Not applicable
Dioctyl sodium sulfosuccinate	577-11-7	Listed	Not applicable	Not applicable	Not applicable
Tributyl phosphate	126-73-8	Listed	Not applicable	Not applicable	Not applicable
Ethylene oxide-Nonylphenol polymer	9016-45-9	Listed	Not applicable	Not applicable	Not applicable
Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega. -hydroxy-, branched, phosphates	68412-53-3	Not applicable	Not applicable	Not applicable	Not applicable
Oxazole, 2,5-diphenyl-	92-71-7	Not applicable	Not applicable	Not applicable	Not applicable
Benzene, 1,4-bis[2-(2-methylphenyl)ethenyl]-	13280-61-0	Not applicable	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Benzene, C10-13-alkyl derivitives	67774-74-7	Not applicable	Not applicable	Not applicable	Not applicable
Dioctyl sodium sulfosuccinate	577-11-7	Not applicable	Not applicable	Not applicable	Not applicable
Tributyl phosphate	126-73-8	Not applicable	Not applicable	Not applicable	Not applicable
Ethylene oxide-Nonylphenol polymer	9016-45-9	Not applicable	Not applicable	Not applicable	Not applicable
Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega. -hydroxy-, branched, phosphates	68412-53-3	Not applicable	Not applicable	Not applicable	Not applicable
Oxazole, 2,5-diphenyl-	92-71-7	Not applicable	Not applicable	Not applicable	Not applicable
Benzene, 1,4-bis[2-(2-methylphenyl)ethenyl]-	13280-61-0	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information

Prepared By
Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date 06-Jun-2014
Revision Date 24-Dec-2021
Print Date 24-Dec-2021
Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS