Fisher Scientific

Part of Thermo Fisher Scientific

Material Safety Data Sheet

Creation Date 18-Aug-2010 **Revision Date** 18-Aug-2010 **Revision Number** 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **Protocol Decolorizer**

Cat No. **255-962, 270-182, 291-474, 23-255-962, 23-270-182, 23-291-474, 23-005-83, 23-291-471**

Synonyms Decolorizing solution - Acetone/Isopropanol (1:4)

Recommended Use Laboratory chemicals

Company
Richard Allan Scientific
A Subsidiary of Thermo Fisher Scientific
4481 Campus Drive
Kalamazoo, MI 49008
Tel: (800) 522-7270

Emergency Telephone Number
Chemtrec US: (800) 424-9300
Chemtrec EU: (202) 483-7616

2. HAZARDS IDENTIFICATION

WARNING!

Emergency Overview

Flammable liquid and vapor. Irritating to eyes and skin. May cause irritation of respiratory tract. May cause central nervous system effects. Aspiration hazard if swallowed - can enter lungs and cause damage. Repeated exposure may cause skin dryness or cracking.

Appearance Clear, Colorless **Physical State** Liquid **odor** pungent

Target Organs Eyes, Skin, Central nervous system (CNS), Liver, Kidney

Potential Health Effects

Acute Effects
Principle Routes of Exposure

Eyes Irritating to eyes.

Skin Irritating to skin. May be harmful in contact with skin. Repeated exposure may cause skin dryness or cracking.

Inhalation Inhalation may cause central nervous system effects. May cause irritation of respiratory tract. May be harmful if inhaled.

Ingestion Aspiration hazard. May be harmful if swallowed. May cause central nervous system effects. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects Experiments have shown reproductive toxicity effects on laboratory animals. May cause adverse liver effects. May cause adverse kidney effects.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions Central nervous system disorders. Preexisting eye disorders. Skin disorders.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	CAS-No	Weight %
Acetone	67-64-1	20
Isopropyl alcohol	67-63-0	80

4. FIRST AID MEASURES

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

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Obtain medical attention.

Ingestion Do not induce vomiting. Call a physician or Poison Control Center immediately.

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point 12.22°C / 54°F

Method No information available.

Autoignition Temperature No information available.

Explosion Limits

Upper 12.0 vol %

Lower 2.5 vol %

Suitable Extinguishing Media CO_2, dry chemical, dry sand, alcohol-resistant foam. Use water spray to cool unopened containers.

Unsuitable Extinguishing Media Water may be ineffective

Hazardous Combustion Products No information available.

Sensitivity to mechanical impact No information available.

Sensitivity to static discharge No information available.

Specific Hazards Arising from the Chemical

Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated.

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. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA **Health** 2 **Flammability** 3 **Instability** 0 **Physical hazards** N/A

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges. Do not get in eyes, on skin, or on clothing.

Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Up Remove all sources of ignition. Soak up with inert absorbent material. Take precautionary measures against static discharges. Keep in suitable and closed containers for disposal.

7. HANDLING AND STORAGE

Handling Use only under a chemical fume hood. Wear personal protective equipment. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Flammables area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Acetone	TWA: 500 ppm STEL: 750 ppm	(Vacated) TWA: 750 ppm (Vacated) TWA: 1800 mg/m^3 (Vacated) STEL: 1000 ppm (Vacated) STEL: 2400 mg/m^3 TWA: 1000 ppm TWA: 2400 mg/m^3	IDLH: 2500 ppm TWA: 250 ppm TWA: 590 mg/m^3
Isopropyl alcohol	TWA: 200 ppm STEL: 400 ppm	(Vacated) TWA: 980 mg/m^3 (Vacated) TWA: 400 ppm (Vacated) STEL: 1225 mg/m^3 (Vacated) STEL: 500 ppm TWA: 400 ppm TWA: 980 mg/m^3	IDLH: 2000 ppm TWA: 980 mg/m^3 TWA: 400 ppm STEL: 500 ppm STEL: 1225 mg/m^3

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Acetone	TWA: 1190 mg/m^3 TWA: 500 ppm STEL: 1000 ppm STEL: 2380 mg/m^3	TWA: 1000 ppm TWA: 2400 mg/m^3 STEL: 1260 ppm STEL: 3000 mg/m^3	TWA: 500 ppm STEL: 750 ppm

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Isopropyl alcohol	TWA: 400 ppm TWA: 985 mg/m^3 STEL: 500 ppm STEL: 1230 mg/m^3	TWA: 400 ppm TWA: 980 mg/m^3 STEL: 1225 mg/m^3 STEL: 500 ppm	TWA: 200 ppm STEL: 400 ppm

NIOSH IDLH: *Immediately Dangerous to Life or Health*

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Clear, Colorless
odor	pungent
Odor Threshold	No information available.
pH	No information available.
Vapor Pressure	55 mmHg
Vapor Density	2.09 (Air = 1.0)
Viscosity	No information available.
Boiling Point/Range	56.1 - 82°C / 133 - 179.6°F
Melting Point/Range	No information available.
Decomposition temperature	No information available.
Flash Point	12.22°C / 54°F
Evaporation Rate	6.8 (Butyl Acetate = 1.0)
Specific Gravity	0.785
Solubility	Soluble in water
log Pow	No data available

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Heat, flames and sparks.
Incompatible Materials	Strong oxidizing agents, Strong acids, Metals
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO_2), peroxides, Thermal decomposition can lead to release of irritating gases and vapors
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions .	None under normal processing.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Acetone	5800 mg/kg (Rat)	Not listed	Not listed
Isopropyl alcohol	4396 mg/kg (Rat)	12800 mg/kg (Rat) 12870 mg/kg (Rabbit)	72.6 mg/L (Rat) 4 h

Irritation Irritating to eyes and skin

Toxicologically Synergistic Products No information available.

Chronic Toxicity

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

Component	ACGIH	IARC	NTP	OSHA	Mexico
Isopropyl alcohol	Not listed	Group 1	Not listed	Not listed	Not listed

IARC: (International Agency for Research on Cancer)
IARC: (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans

Sensitization No information available.

Mutagenic Effects No information available.

Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental Effects Developmental effects have occurred in experimental animals.

Teratogenicity Teratogenic effects have occurred in experimental animals..

Other Adverse Effects See actual entry in RTECS for complete information.

Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Acetone	Not listed	Leuciscus idus: LC50 = 11300 mg/L/48h Salmo gairdneri: LC50 = 6100 mg/L/24h	EC50 = 14500 mg/L/15 min	EC50 = 39 mg/L/48h EC50 = 12700 mg/L/48h EC50 = 12600 mg/L/48h
Isopropyl alcohol	EC50 96 h >1000 mg/L EC50 72 h >1000 mg/L EC50 96 h >1000 mg/L	LC50 96 h 9640 mg/L	= 35390 mg/L EC50 Photobacterium phosphoreum 5 min	EC50 48 h 13299 mg/L

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility .

Component	log Pow
Acetone	-0.24
Isopropyl alcohol	0.05

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

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Acetone - 67-64-1	U002	-

14. TRANSPORT INFORMATION

DOT

UN-No UN1993
Proper Shipping Name FLAMMABLE LIQUID, N.O.S.
Proper technical name (ISOPROPANOL, ACETONE)
Hazard Class 3
Packing Group II

TDG

UN-No UN1993
Proper Shipping Name FLAMMABLE LIQUID, N.O.S.
Hazard Class 3
Packing Group II

IATA

UN-No UN1993
Proper Shipping Name FLAMMABLE LIQUID, N.O.S.
Hazard Class 3
Packing Group II

IMDG/IMO

UN-No UN1993
Proper Shipping Name FLAMMABLE LIQUID, N.O.S.
Hazard Class 3
Packing Group II

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Acetone	X	X	-	200-662-2	-		X	X	X	X	KE-29367 X
Isopropyl alcohol	X	X	-	200-661-7	-		X	X	X	X	KE-29363 X

Legend:
X - Listed
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P - Indicates a commenced PMN substance
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
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).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b)

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Isopropyl alcohol	67-63-0	80	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act
Not applicable

Clean Air Act
Not applicable

OSHA
Not applicable

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Acetone	5000 lb	-

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

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Acetone	X	X	X	-	X
Isopropyl alcohol	X	X	X	-	X

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

U.S. Department of Homeland Security
This product contains the following DHS chemicals:

Component	DHS Chemical Facility Anti-Terrorism Standard
Acetone	2000 lb STQ

Other International Regulations

Mexico - Grade Serious risk, Grade 3

Canada

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

WHMIS Hazard Class
B2 Flammable liquid
D2B Toxic materials

16. OTHER INFORMATION

Prepared By	Regulatory Affairs Thermo Fisher Scientific Tel: (412) 490-8929
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Disclaimer

The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of MSDS