



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name	Resusci Manikin Wipe
CAS #	Mixture
Product use	Cleaner
Manufacturer	Laerdal Medical AS Tanke Svilandsgate 30 P.O. Box 377 4002 Stavanger, Norway Phone: +47 51 51 17 00 Fax: +47 51 52 35 57 Emergency Phone: 1-613-996-6666 (CANUTEC)
Supplier	Laerdal Medical Canada Ltd. 151 Nashdene Rd., Unit #45 Toronto, ON M1V 4C3 Canada Phone: 1-888-523-7325 Fax: 1-416-298-8016

2. Hazards Identification

Emergency overview	WARNING FLAMMABLE SOLID. EYE IRRITANT. Skin irritation possible with prolonged exposure. Contains a potential reproductive toxin.
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Eyes	Causes irritation.
Skin	Prolonged exposure may cause skin irritation.
Inhalation	May cause respiratory tract irritation.
Ingestion	Not a normal route of exposure. May cause stomach distress, nausea or vomiting.
Target organs	Blood. Eyes. Liver. Respiratory system. Skin.
Chronic effects	Prolonged or repeated exposure can cause drying, defatting and dermatitis.
Signs and symptoms	Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
OSHA Regulatory Status	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
Potential environmental effects	See section 12.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Ethanol	64-17-5	60 - 100
Diethyl phthalate	84-66-2	0.1 - 1

4. First Aid Measures

First aid procedures	
Eye contact	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
Skin contact	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Ingestion	Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
Notes to physician	Treat patient symptomatically. Symptoms may be delayed.

General advice

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties	Flammable by WHMIS/OSHA criteria.
Extinguishing media	
Suitable extinguishing media	Water spray. Dry chemical. Alcohol foam. Carbon dioxide.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Environmental precautions	Do not discharge into lakes, streams, ponds or public waters.
Methods for containment	Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Remove sources of ignition. Pick up and discard towel.

7. Handling and Storage

Handling	Avoid contact with eyes. Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash thoroughly after handling. Use only with adequate ventilation. Keep container tightly closed.
Storage	Keep out of reach of children. Store in a closed container away from incompatible materials. Keep away from heat, open flames or other sources of ignition.

8. Exposure Controls / Personal Protection

Exposure limits	
Ingredient(s)	Exposure Limits
Diethyl phthalate	ACGIH-TLV TWA: 5 mg/m ³ OSHA-PEL Not established
Ethanol	ACGIH-TLV TWA: 1000 ppm STEL: 1000 ppm OSHA-PEL TWA: 1000 ppm
Engineering controls	General ventilation normally adequate.
Personal protective equipment	
Eye / face protection	Not normally required when used as directed.
Hand protection	Rubber gloves. Confirm with a reputable supplier first.

Skin and body protection	As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Liquid saturated on wipe
Color	Clear, colorless
Form	Pre-moistened towelette.
Odor	Alcohol
Odor threshold	Not available
Physical state	Solid
pH	Not available
Melting point	Not available
Freezing point	Not available
Boiling point	78.5 (Ethanol)
Pour point	Not available
Evaporation rate	Not available
Flash point	53.60 °F (12 °C) (Ethanol) Tag Closed Cup
Auto-ignition temperature	791.60 °F (422 °C) (Ethanol)
Flammability limits in air, lower, % by volume	Not applicable
Flammability limits in air, upper, % by volume	Not applicable
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	0.79 (Ethanol)
Octanol/water coefficient	Not available
Solubility (H2O)	Pad is not soluble in water
VOC (Weight %)	Not available
Viscosity	Not available
Percent volatile	Not available

10. Stability and Reactivity

Reactivity	This product may react with oxidizing agents.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Avoid high temperatures. Do not mix with other chemicals.
Incompatible materials	Oxidizers.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.

11. Toxicological Information

Component analysis - LC50	
Ingredient(s)	LC50
Diethyl phthalate	> 625 ppm rat
Ethanol	31623 ppm rat
Component analysis - Oral LD50	
Ingredient(s)	LD50
Diethyl phthalate	6172 mg/kg mouse; 1000 mg/kg rat; 8600 mg/kg guinea pig
Ethanol	3450 mg/kg mouse; 7060 mg/kg rat
Effects of acute exposure	
Eye	Causes irritation.

Skin	Prolonged exposure may cause skin irritation.
Inhalation	May cause respiratory tract irritation.
Ingestion	Not a normal route of exposure. May cause stomach distress, nausea or vomiting.
Sensitization	Non-hazardous by WHMIS/OSHA criteria.
Chronic effects	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	See below.
ACGIH - Threshold Limit Values - Carcinogens	
Diethyl phthalate	84-66-2 A4 - Not Classifiable as a Human Carcinogen
Ethanol	64-17-5 A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC - Group 1 (Carcinogenic to Humans)	
Ethanol	64-17-5 Monograph 100E [in preparation] (in alcoholic beverages); Monograph 96 [2010] (in alcoholic beverages)
U.S. - California - Proposition 65 - Carcinogens List	
Ethanol	64-17-5 carcinogen, initial date 4/29/2011 (in alcoholic beverages)
Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Reproductive effects	Contains a potential reproductive toxin.
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.
Name of Toxicologically Synergistic Products	Not available

12. Ecological Information

Ecotoxicity	See below
Ecotoxicity - Freshwater Algae - Acute Toxicity Data	
Diethyl phthalate	84-66-2 72 Hr EC50 Desmodesmus subspicatus: 23 mg/L; 72 Hr EC50 Desmodesmus subspicatus: 23 mg/L [static]; 96 Hr EC50 Desmodesmus subspicatus: 21 mg/L; 96 Hr EC50 Desmodesmus subspicatus: 21 mg/L [static]; 72 Hr EC50 Pseudokirchneriella subcapitata: 42 - 255 mg/L; 96 Hr EC50 Pseudokirchneriella subcapitata: 2.11 - 4.29 mg/L [static]
Ecotoxicity - Freshwater Fish - Acute Toxicity Data	
Diethyl phthalate	84-66-2 96 Hr LC50 Pimephales promelas: 17 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 16.8 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 22 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 16.7 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 12 mg/L [flow-through]
Ethanol	64-17-5 96 Hr LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static]; 96 Hr LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through]
Ecotoxicity - Water Flea - Acute Toxicity Data	
Diethyl phthalate	84-66-2 48 Hr EC50 Daphnia magna: 36 - 74 mg/L; 48 Hr EC50 Daphnia magna: 86 mg/L [Static]
Ethanol	64-17-5 48 Hr LC50 Daphnia magna: 9268 - 14221 mg/L; 24 Hr EC50 Daphnia magna: 10800 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L [Static]
Persistence / degradability	Not available
Bioaccumulation / accumulation	Not available
Mobility in environmental media	Not available
Environmental effects	Not available
Aquatic toxicity	Not available
Partition coefficient	Not available
Chemical fate information	Not available
Other adverse effects	Not available

13. Disposal Considerations

Disposal instructions	Discard after single use. Review federal, state/provincial, and local government requirements prior to disposal. Discard with solid waste.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

U.S. Department of Transportation (DOT)

Basic shipping requirements:

Proper shipping name	Solids containing flammable liquid, n.o.s. (ETHANOL)
Hazard class	4.1
UN number	UN3175
Packing group	II
Additional information:	
Special provisions	47, IB6, IP2, T3, TP33
Packaging exceptions	151
ERG number	133



Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

Proper shipping name	SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (ETHANOL)
Hazard class	4.1
UN number	UN3175
Packing group	II
Additional information:	
Special provisions	16, 56



15. Regulatory Information

Canadian federal regulations

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

Canada - WHMIS - Ingredient Disclosure List

Diethyl phthalate	84-66-2	0.1 %
Ethanol	64-17-5	0.1 %

WHMIS status Controlled

WHMIS classification Class B - Division 4 - Flammable Solid, Class D - Division 2A, 2B

WHMIS labeling



Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

US Federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. - CAA (Clean Air Act) - Reactivity Factors for VOCs in Aerosol Coatings

Ethanol 64-17-5 1.69 G Ozone/g VOC Reactivity Factor

U.S. - CAA (Clean Air Act) - Volatile Organic Compounds (VOCs) in SOCM

Ethanol 64-17-5 Present

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Diethyl phthalate 84-66-2 1000 Lb final RQ; 454 kg final RQ

U.S. - CWA (Clean Water Act) - Priority Pollutants

Diethyl phthalate 84-66-2 Present

CERCLA (Superfund) reportable quantity

1,2-Benzenedicarboxylic acid, diethyl ester: 1000.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
 Delayed Hazard - Yes
 Fire Hazard - Yes
 Pressure Hazard - No
 Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Clean Water Act (CWA) Priority pollutant

State regulations WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Diethyl phthalate 84-66-2 Present
 Ethanol 64-17-5 Present (refers to solutions >=25% which are not beverage alcohols)

U.S. - California - Proposition 65 - Carcinogens List

Ethanol 64-17-5 carcinogen, initial date 4/29/2011 (in alcoholic beverages)

U.S. - California - Proposition 65 - Developmental Toxicity

Ethanol 64-17-5 developmental toxicity, initial date 10/1/87 (in alcoholic beverages)

U.S. - Louisiana - Reportable Quantity List for Pollutants

Diethyl phthalate 84-66-2 1000 Lb final RQ; 454 kg final RQ

U.S. - Massachusetts - Right To Know List

Diethyl phthalate 84-66-2 Present
 Ethanol 64-17-5 Teratogen

U.S. - Minnesota - Hazardous Substance List

Diethyl phthalate 84-66-2 Present
 Ethanol 64-17-5 Present

U.S. - New Jersey - Right to Know Hazardous Substance List

Diethyl phthalate 84-66-2 sn 0707
 Ethanol 64-17-5 sn 0844

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Diethyl phthalate 84-66-2 1000 Lb RQ (air); 1 lb RQ (land/water)

U.S. - Pennsylvania - RTK (Right to Know) List

Diethyl phthalate 84-66-2 Environmental hazard
 Ethanol 64-17-5 Present

U.S. - Rhode Island - Hazardous Substance List

Diethyl phthalate 84-66-2 Toxic; Flammable
 Ethanol 64-17-5 Toxic; Flammable

Inventory name

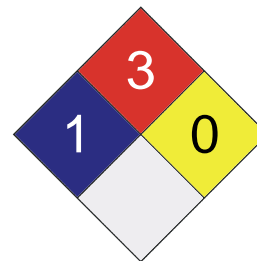
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	* 1
Flammability	3
Physical Hazard	0
Personal Protection	



Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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Prepared by

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Other information

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.

This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.