Material Safety Data Sheet

Date Printed: 16/DEC/2004 Date Updated: 24/MAY/2004 Version 1.5 According to 91/155/EEC

1 - Product and Company Information

Product Name Product Number	ETHANOL ABSOLUTE 34964	EXTRA PURE	
Company	Sigma-Aldrich Pt #08-01 Citilink Singapore 118529	e Ltd Warehouse	
Technical Phone # Fax	51ngapore 65 271 1089 65 271 1571		
2 - Composition/Information	on Ingredients		
Product Name	CAS #	EC no	Annex I Index Number
ETHYL ALCOHOL, ABSOLUTE	64-17-5	200-578-6	603-002-00-5
Formula C2H60 Molecular Weight 46.07 AMU			
3 - Hazards Identification			
SPECIAL INDICATION OF HAZARD Highly flammable.	S TO HUMANS AND I	HE ENVIRONME	NT
4 - First Aid Measures			
AFTER INHALATION If inhaled, remove to fre artificial respiration. I	sh air. If not br f breathing is di	eathing give fficult, giv	e oxygen.
AFTER SKIN CONTACT In case of contact, immed amounts of water.	iately wash skin	with soap and	d copious
AFTER EYE CONTACT In case of contact, immed of water for at least 15	iately flush eyes minutes.	with copiou	s amounts
AFTER INGESTION If swallowed, wash out mo conscious. Call a physici	uth with water pr an.	rovided perso	n is
5 - Fire Fighting Measures			
EXTINGUISHING MEDIA Suitable: Water spray. Ca appropriate foam.	rbon dioxide, dry	chemical po	wder, or
SPECIAL RISKS Specific Hazard(s): Flamm	able liquid. Emit	s toxic fume	s under

fire conditions. Explosion Hazards: Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions. SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. SPECIFIC METHOD(S) OF FIRE FIGHTING Use water spray to cool fire-exposed containers. 6 - Accidental Release Measures PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL Evacuate area. Shut off all sources of ignition. PROCEDURE(S) OF PERSONAL PRECAUTION(S) Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves. METHODS FOR CLEANING UP Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete. 7 - Handling and Storage HANDLING Directions for Safe Handling: Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. STORAGE Conditions of Storage: Keep tightly closed. Keep away from heat, sparks, and open flame. Store in a cool dry place. Handle and store under nitrogen. SPECIAL REQUIREMENTS: Hygroscopic. 8 - Exposure Controls / Personal Protection ENGINEERING CONTROLS Safety shower and eye bath. Use nonsparking tools. Mechanical exhaust required. GENERAL HYGIENE MEASURES Wash thoroughly after handling. Wash contaminated clothing before reuse. EXPOSURE LIMITS Value Country Source Type Poland 1900 NDS Poland NDSCh Poland NDSP EXPOSURE LIMITS - DENMARK Source Type Value OEL TWA 1,900 mg/m31,000 ppm

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	IMITS - GERMAN Source TRGS 900	IY Type OEL	Value 1,900 mg/m3 1,000 ppm
Remarks: 4			, 11
EXPOSURE L	IMITS - NORWAY Source	Type OEL	Value 950 mg/m3 500 ppm
EXPOSURE LI	IMITS - SWEDEN Source	I Type LLV (Lev	Value rel1,000 mg/m3 500 ppm
EXPOSURE LI Remarks: C	IMITS - SWITZE Source OEL	RLAND Type OEL	Value 960mg/m3* 500ppm*
EXPOSURE LI	IMITS - UNITEI Source OEL) KINGDOM Type OEL	Value 1,920 mg/m3 1,000 ppm
PERSONAL PH Respirat Hand Pro Eye Prot	ROTECTIVE EQUI cory Protectic otection: Comp cection: Chemi	PMENT on: Government oatible chemica cal safety goo	approved respirator. al-resistant gloves. ggles.
9 - Physica	al and Chemica	al Properties	
Appearance		Physical State	
		Color: Colorle	e: Clear liquid ess
Property		Color: Colorle Value	At Temperature or Pressure
Property pH BP/BP Range MP/MP Range Flash Point	e e c	Color: Colorle Value N/A 78 - 80 °C N/A 14 °C	At Temperature or Pressure 760 mmHg Method: closed cup

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10 - Stability and Reactivity
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STABILITY Stable: Stable. Conditions to Avoid: Moisture. Materials to Avoid: Alkali metals, Ammonia, Oxidizing agents, Peroxides. HAZARDOUS DECOMPOSITION PRODUCTS Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide. HAZARDOUS POLYMERIZATION Hazardous Polymerization: Will not occur 11 - Toxicological Information RTECS NUMBER: KQ630000 ACUTE TOXICITY LDLO Oral Child 2000 mg/kg Remarks: Lungs, Thorax, or Respiration: Other changes. Liver: Fatty liver degeneration. Blood: Other changes. LDLO Oral Human 1400 mg/kg Remarks: Behavioral:Sleep. Behavioral:Headache. Gastrointestinal: Nausea or vomiting. LDLO Subcutaneous Infant 19440 MG/KG Remarks: Behavioral: Convulsions or effect on seizure threshold. Behavioral:Coma. Nutritional and Gross Metabolic:Changes in:Body temperature decrease. LD50 Oral Rat 7060 mg/kg Remarks: Lungs, Thorax, or Respiration: Other changes. LC50 Inhalation Rat 20,000 ppm 10H LD50 Intraperitoneal Rat 3600 UG/KG LD50 Intravenous

Rat 1440 MG/KG Remarks: Lungs, Thorax, or Respiration: Dyspnea. LD50 Intraarterial Rat 11 MG/KG Remarks: Lungs, Thorax, or Respiration: Chronic pulmonary edema. Lungs, Thorax, or Respiration: Dyspnea. LD50 Oral Mouse 3450 mg/kg LC50 Inhalation Mouse 39,000 mg/m3 4HLD50 Intraperitoneal Mouse 528 MG/KG LD50 Subcutaneous Mouse 8285 MG/KG LD50 Intravenous Mouse 1973 MG/KG LD50 Oral Rabbit 6300 mg/kg LD50 Intraperitoneal Rabbit 963 MG/KG LD50 Intravenous Rabbit 2374 MG/KG LD50 Oral Guinea pig 5560 mg/kg LD50 Intraperitoneal Guinea pig 3414 MG/KG

LD50 Intraperitoneal Hamster 5068 MG/KG LD50 Intraperitoneal Mammal 4300 MG/KG Remarks: Behavioral:Somnolence (general depressed activity). Behavioral: Convulsions or effect on seizure threshold. Behavioral: Change in motor activity (specific assay). IRRITATION DATA Skin Rabbit 400 mg Remarks: Open irritation test Skin Rabbit 20 mg 24H Remarks: Moderate irritation effect Eyes Rabbit 500 mg Remarks: Severe irritation effect Eyes Rabbit 500 mg 24H Remarks: Mild irritation effect Eyes Rabbit 100 mg 4SRemarks: Rinsed SIGNS AND SYMPTOMS OF EXPOSURE Can cause CNS depression. Narcotic effect. Damage to the heart. ROUTE OF EXPOSURE Skin Contact: Causes skin irritation. Skin Absorption: May be harmful if absorbed through the skin. Eye Contact: Causes eye irritation. Inhalation: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract. Ingestion: May be harmful if swallowed. TARGET ORGAN INFORMATION Nerves. Liver. Heart. CHRONIC EXPOSURE - CARCINOGEN Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

Mouse Route of Application: Oral Exposure Time: 50W Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors. Blood: Lymphomas including Hodgkin's disease. Mouse Route of Application: Rectal Exposure Time: 18W Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Gastrointestinal:Tumors. Liver:Tumors. Mouse Route of Application: Oral Exposure Time: 57W Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Gastrointestinal:Tumors. CHRONIC EXPOSURE - MUTAGEN Human 220 MMOL/L Cell Type: lymphocyte DNA inhibition Human 1160 GM/L Cell Type: lymphocyte Cytogenetic analysis Human 12000 PPM Cell Type: fibroblast Cytogenetic analysis Human 1 PPH/72H-C Cell Type: leukocyte Cytogenetic analysis Human 500 PPM 72H Cell Type: lymphocyte Sister chromatid exchange Rat 4 GM/KG Oral DNA damage Rat 250 GM/KG Intraperitoneal 16D Other mutation test systems Rat 3 GM/KG Oral Other mutation test systems

Rat 2 GM/KG Oral Cytogenetic analysis Mouse 1240 MG/KG Intraperitoneal 2D Micronucleus test Mouse 40 GM/KG Oral Cytogenetic analysis Mouse 420 MG/KG Oral 3W Sister chromatid exchange Mouse 5 GM/KG Oral SLN Mouse 3720 MG/KG Oral 3D Dominant lethal test Mouse 1500 MG/KG Oral 50D sperm Hamster 100 PPM Cell Type: ovary Cytogenetic analysis Hamster 1 PPH Cell Type: Embryo Cytogenetic analysis Hamster 160 MMOL/L Cell Type: ovary Cytogenetic analysis Hamster 3900 MG/L Cell Type: ovary Sister chromatid exchange Doq 400 UMOL/L

Cell Type: lymphocyte Micronucleus test CHRONIC EXPOSURE - TERATOGEN Species: Woman Dose: 250 MG/KG Route of Application: Oral Exposure Time: (37W PREG) Result: Effects on Embryo or Fetus: Other effects to embryo. Species: Rat Dose: 4 GM/KG Route of Application: Oral Exposure Time: (13D PREG) Result: Effects on Embryo or Fetus: Cytological changes (including somatic cell genetic material). Species: Rat Dose: 12 GM/KG Route of Application: Oral Exposure Time: (9-12D PREG) Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Species: Rat Dose: 24 GM/KG Route of Application: Oral Exposure Time: (14-16D PREG) Result: Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities: Other developmental abnormalities. Species: Rat Dose: 4 GM/KG Route of Application: Oral Exposure Time: (6-15D PREG) Result: Specific Developmental Abnormalities: Eye, ear. Specific Developmental Abnormalities: Urogenital system. Species: Rat Dose: 44 GM/KG Route of Application: Oral Exposure Time: (7-17D PREG) Result: Specific Developmental Abnormalities: Musculoskeletal system. Specific Developmental Abnormalities: Urogenital system. Species: Rat Dose: 20000 PPM/7H Route of Application: Inhalation Exposure Time: (1-22D PREG) Result: Specific Developmental Abnormalities: Other developmental abnormalities. Species: Rat Dose: 2240 MG/KG Route of Application: Intraperitoneal Exposure Time: (9-12D PREG) Result: Effects on Embryo or Fetus: Extra embryonic structures (e.g., placenta, umbilical cord). Species: Rat

Dose: 600 MG/KG Route of Application: Intraperitoneal Exposure Time: (8-15D PREG) Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Species: Rat Dose: 600 MG/KG Route of Application: Intraperitoneal Exposure Time: (8-15D PREG) Result: Specific Developmental Abnormalities: Craniofacial (including nose and tongue). Specific Developmental Abnormalities: Musculoskeletal system. Species: Rat Dose: 4 GM/KG Route of Application: Intravenous Exposure Time: (6-7D PREG) Result: Effects on Embryo or Fetus: Extra embryonic structures (e.g., placenta, umbilical cord). Effects on Embryo or Fetus: Other effects to embryo. Specific Developmental Abnormalities: Musculoskeletal system. Species: Rat Dose: 4 GM/KG Route of Application: Intravenous Exposure Time: (6-7D PREG) Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system. Specific Developmental Abnormalities: Other developmental abnormalities. Species: Mouse Dose: 162 GM/KG Route of Application: Oral Exposure Time: (11-19D PREG) Result: Effects on Embryo or Fetus: Extra embryonic structures (e.g., placenta, umbilical cord). Species: Mouse Dose: 5800 MG/KG Route of Application: Oral Exposure Time: (7D PREG) Result: Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities: Eye, ear. Species: Mouse Dose: 75600 MG/KG Route of Application: Oral Exposure Time: (5-11D PREG) Result: Specific Developmental Abnormalities: Urogenital system. Effects on Newborn: Live birth index (# fetuses per litter; measured after birth). Effects on Newborn: Growth statistics (e.g., reduced weight gain). Species: Mouse Dose: 5500 MG/KG Route of Application: Oral Exposure Time: (9D PREG) Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.q., stunted fetus).

Species: Mouse Dose: 5800 MG/KG Route of Application: Intraperitoneal Exposure Time: (10D PREG) Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system. Species: Mouse Dose: 5800 MG/KG Route of Application: Intraperitoneal Exposure Time: (7D PREG) Result: Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities: Eye, ear. Specific Developmental Abnormalities: Craniofacial (including nose and tonque). Species: Mouse Dose: 5622 UG/KG Route of Application: Intraperitoneal Exposure Time: (10D PREG) Result: Effects on Embryo or Fetus: Fetal death. Specific Developmental Abnormalities: Eye, ear. Specific Developmental Abnormalities: Musculoskeletal system. Species: Mouse Dose: 4 MG/KG Route of Application: Intraperitoneal Exposure Time: (10D PREG) Result: Effects on Embryo or Fetus: Cytological changes (including somatic cell genetic material). Species: Monkey Dose: 32400 MG/KG Route of Application: Oral Exposure Time: (2-19W PREG) Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities: Craniofacial (including nose and tongue). Species: Monkey Dose: 43200 MG/KG Route of Application: Oral Exposure Time: (1-24W PREG) Result: Effects on Embryo or Fetus: Extra embryonic structures (e.g., placenta, umbilical cord). Species: Rabbit Dose: 15 MG/KG Route of Application: Intravenous Exposure Time: (15-29D PREG) Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Other effects to embryo. Species: Guinea pig Dose: 240 GM/KG Route of Application: Oral Exposure Time: (2-61D PREG) Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities:

Central nervous system. Species: Guinea pig Dose: 72 GM/KG Route of Application: Oral Exposure Time: (45-62D PREG) Result: Specific Developmental Abnormalities: Craniofacial (including nose and tongue). Species: Domestic Animals Dose: 94 GM/KG Route of Application: Intravenous Exposure Time: (14-21W PREG) Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Species: Domestic Animals Dose: 40 GM/KG Route of Application: Intravenous Exposure Time: (14-17W PREG) Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Newborn: Biochemical and metabolic. Species: Domestic Animals Dose: 1 GM/KG Route of Application: Intravenous Exposure Time: (18W PREG) Result: Specific Developmental Abnormalities: Respiratory system. Species: Mammal Dose: 31500 MG/KG Route of Application: Oral Exposure Time: (15-35D PREG) Result: Specific Developmental Abnormalities: Craniofacial (including nose and tongue). CHRONIC EXPOSURE - REPRODUCTIVE HAZARD Species: Woman Dose: 41 GM/KG Route of Application: Oral Exposure Time: (41W PREG) Result: Effects on Newborn: Apgar score (human only). Effects on Newborn: Other neonatal measures or effects. Effects on Newborn: Drug dependence. Species: Woman Dose: 8 GM/KG Route of Application: Intravenous Exposure Time: (32W PREG) Result: Effects on Newborn: Apgar score (human only). Effects on Newborn: Other neonatal measures or effects. Species: Woman Dose: 200 MG/KG Route of Application: Intrauterine Exposure Time: (5D PRE) Result: Effects on Fertility: Female fertility index (e.g., # females pregnant per # sperm positive females; # females pregnant per # females mated).

Species: Rat Dose: 78 GM/KG Route of Application: Oral Exposure Time: (7-19D PREG) Result: Effects on Newborn: Biochemical and metabolic. Species: Rat Dose: 322 GM/KG Route of Application: Oral Exposure Time: (35D MALE) Result: Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count). Paternal Effects: Testes, epididymis, sperm duct. Species: Rat Dose: 132 GM/KG Route of Application: Oral Exposure Time: (1-22D PREG) Result: Maternal Effects: Parturition. Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Behavioral. Species: Rat Dose: 354 GM/KG Route of Application: Oral Exposure Time: (10D POST) Result: Effects on Newborn: Biochemical and metabolic. Species: Rat Dose: 35295 MG/KG Route of Application: Oral Exposure Time: (1-15D PREG) Result: Effects on Fertility: Female fertility index (e.g., # females pregnant per # sperm positive females; # females pregnant per # females mated). Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Species: Rat Dose: 15 GM/KG Route of Application: Intraperitoneal Exposure Time: (8-13D PREG) Result: Effects on Newborn: Behavioral. Effects on Newborn: Physical. Species: Rat Dose: 600 MG/KG Route of Application: Intraperitoneal Exposure Time: (8-15D PREG) Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Extra embryonic structures (e.g., placenta, umbilical cord). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Species: Rat Dose: 3 GM/KG Route of Application: Intravenous Exposure Time: (6-7D PREG) Result: Effects on Fertility: Post-implantation mortality (e.g.,

dead and/or resorbed implants per total number of implants). Species: Rat Dose: 5 MG/KG Route of Application: Intracerebral Exposure Time: (1D PRE) Result: Effects on Fertility: Other measures of fertility Species: Rat Dose: 60 GM/KG Route of Application: Unreported Exposure Time: (9-14D PREG) Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetal death. Species: Rat Dose: 400 MG/KG Route of Application: Intratesticular Exposure Time: (1D MALE) Result: Effects on Fertility: Male fertility index (e.g., # males impregnating females per # males exposed to fertile nonpregnant females). Species: Rat Dose: 2400 MG/KG Route of Application: Intrauterine Exposure Time: (10D PREG) Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Species: Rat Dose: 642 GM/KG Route of Application: Multiple Exposure Time: (1-21D PREG/23D POST) Result: Maternal Effects: Parturition. Effects on Newborn: Weaning or lactation index (e.g., # alive at weaning per # alive at day 4). Effects on Newborn: Growth statistics (e.g., reduced weight gain). Species: Rat Dose: 373 GM/KG Route of Application: Multiple Exposure Time: (23D POST) Result: Effects on Newborn: Behavioral. Effects on Newborn: Physical. Species: Mouse Dose: 21 GM/KG Route of Application: Oral Exposure Time: (1-21D PREG) Result: Effects on Newborn: Biochemical and metabolic. Effects on Newborn: Behavioral. Species: Mouse Dose: 1680 GM/KG Route of Application: Oral Exposure Time: (70D MALE) Result: Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count). Species: Mouse

Dose: 4300 MG/KG Route of Application: Intraperitoneal Exposure Time: (10D PREG) Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Species: Dog Dose: 21600 MG/KG Route of Application: Oral Exposure Time: (1-60D PREG) Result: Effects on Newborn: Stillbirth. Effects on Newborn: Live birth index (# fetuses per litter; measured after birth). Effects on Newborn: Growth statistics (e.g., reduced weight qain). Species: Dog Dose: 260 GM/KG Route of Application: Oral Exposure Time: (1-62D PREG) Result: Effects on Newborn: Viability index (e.g., # alive at day 4 per # born alive). Species: Dog Dose: 221 GM/KG Route of Application: Oral Exposure Time: (1-47D PREG) Result: Effects on Fertility: Abortion. Species: Dog Dose: 100 MG/KG Route of Application: Intratesticular Exposure Time: (1D MALE) Result: Paternal Effects: Testes, epididymis, sperm duct. Species: Monkey Dose: 78 GM/KG Route of Application: Oral Exposure Time: (4-23W PREG) Result: Effects on Fertility: Abortion. Species: Monkey Dose: 400 MG/KG Route of Application: Oral Exposure Time: (2-21W PREG) Result: Effects on Newborn: Growth statistics (e.g., reduced weight gain). Species: Monkey Dose: 206 GM/KG Route of Application: Oral Exposure Time: (90D PRE) Result: Maternal Effects: Menstrual cycle changes or disorders. Species: Rabbit Dose: 3945 MG/KG Route of Application: Oral Exposure Time: (1D PRE) Result: Effects on Fertility: Female fertility index (e.g., # females pregnant per # sperm positive females; # females pregnant per # females mated).

Dose: 3750 MG/KG Route of Application: Oral Exposure Time: (1D PRE) Result: Effects on Fertility: Other measures of fertility Species: Piq Dose: 2648 GM/KG Route of Application: Oral Exposure Time: (78W PRE/1-16W PREG) Result: Effects on Newborn: Live birth index (# fetuses per litter; measured after birth). Effects on Newborn: Growth statistics (e.g., reduced weight gain). Species: Guinea pig Dose: 90 GM/KG Route of Application: Oral Exposure Time: (1-68D PREG) Result: Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Behavioral. Species: Guinea pig Dose: 264 GM/KG Route of Application: Oral Exposure Time: (2-67D PREG) Result: Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Biochemical and metabolic. Effects on Newborn: Physical.

12 - Ecological Information

ECOTOXICOLOGICAL EFFECTS

Test Type: EC50 Daphnia Species: Daphnia magna Time: 24 h Value: > 10,000 mg/l

Test Type: LC50 Fish Species: Leuciscus idus Time: 48 h Value: > 10,000 mg/l

Test Type: LC50 Fish Species: Onchorhynchus mykiss (Rainbow trout) Time: 96 h Value: 12,000 - 16,000 mg/l

Test Type: LC50 Fish Species: Pimephales promelas (Fathead minnow) Time: 96 h Value: 13,480 mg/l

13 - Disposal Considerations

SUBSTANCE DISPOSAL

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Contact a licensed professional waste disposal service to dispose
of this material. Burn in a chemical incinerator equipped with an
afterburner and scrubber but exert extra care in igniting as this
material is highly flammable. Observe all federal, state, and
local environmental regulations.
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14 - Transport Information

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RID/ADR
   UN#: 1170
   Class: 3
   PG: II
   Proper Shipping Name: Ethanol
IMDG
   UN#: 1170
   Class: 3
   PG: II
   Proper Shipping Name: Ethanol
   Marine Pollutant: No
   Severe Marine Pollutant: No
IATA
   UN#: 1170
   Class: 3
   PG: II
   Proper Shipping Name: Ethanol
   Inhalation Packing Group I: No
15 - Regulatory Information
CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES
   ANNEX I INDEX NUMBER: 603-002-00-5
   INDICATION OF DANGER: F
     Highly Flammable.
   R-PHRASES: 11
     Highly flammable.
   S-PHRASES: 7 16
     Keep container tightly closed. Keep away from sources of
     ignition - no smoking.
COUNTRY SPECIFIC INFORMATION
Germany
   WGK: 1
SWITZERLAND
   SWISS POISON CLASS: FREI
NORWAY
   Labelling for organic solvents where the package is 1liter or
   more.
   YL-tall m3/1: 1193
   YL-group: 3
   Risk phrases: 20
     Harmful by inhalation.
   Safety phrases: 38 42
     In case of insufficient ventilation, wear suitable respiratory
     equipment. During fumigation/spraying wear suitable respiratory
     equipment.
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16 - Other Information

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to

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