street of Party PAGE: 1 ACCT: 463282001 DATE: 08/12/03 INDEX: D32234422 CAT NO: AC168600010 PO MER: P0095792 **** MATERIAL SAFETY DATA SHEET **** Sodium Methoxide, 30 wt% Solution in Methanol 503 **** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION **** DS Name: Sodium Methoxide, 30 wt% Solution in Methanol talog Numbers: AC168600000, AC168600010, AC168600025, AC168600250 nonyms : None mpany Identification (Europe): Acros Organics BVBA Janssen Pharmaceuticalaan 3a 2440 Geel, Belgium mpany Identification (USA): Acros Organics One Reagent Lane Fairlawn, NJ 07410 information in North America, call: 800-ACROS-01 r information in Europe, call: 0032(0) 14575211 emergencies in the US, call CHEMTREC: 800-424-9300 emergencies in Europe, call: 0032(0) 14575299 r r r **** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS **** EINECS Chemical Name - 94 CASS -------67-56-1 Methyl alcohol 70.0 1 200-659-6 124-41-4 Sodium methylate 30.0 204-699-5 Hazard Symbols: T F Risk Phrases: 11 14 23/25 34 -**** SECTION 3 - HAZARDS IDENTIFICATION **** EMERGENCY OVERVIEW pearance: Not available. Flash Point: 32 deg C. ngeri Flammable liquid and vapor. Moisture sensitive. May cause ntral nervous system depression. May cause kidney damage. Poison! nnot be made non-poisonous. May be fatal or cause blindness if allowed. May cause severe respiratory and digestive tract ritation with possible burns. May cause reproductive and fetal fects. Vapor harmful. Causes eye and skin irritation and possible rns. rget Organs: Kidneys, central nervous system, eyes. tential Health Effects Eye: Contact with eyes may cause severe irritation, and possible eye burns. May cause painful sensitization to light. May cause blindness Skin May be absorbed through the skin. May cause severe irritation and possible burns. Ingestion: May be fatal or cause blindness if swallowed. May cause kidney damage. May cause systemic toxicity with acidosis. May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. Inhalation: May cause visual impairment and possible permanent blindness. May cause effects similar to those described for ingestion. May cause drowsiness, unconsciousness, and central nervous system depression. May cause severe respiratory tract irritation and possible burns. Chronic Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. **** SECTION 4 - FIRST AID MEASURES **** Eves: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Skin: Get medical aid. Immediately flush skin with plenty of scap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Ing Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. Inhalation: 3,166 e References and an and the set of And the later and a set of the set

PAGE: 2 08/12/03 ACC'T : 463282001 DATE INDEX: D32234422 CAT NO: AC168600010. PO NBR: P0095792 Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation. Notes to Physician: Ethanol may inhibit methanol metabolism. Antidote: Ethanol may inhibit methanol metabolism. **** SECTION 5 - FIRE FIGHTING MEASURES **** General Information: ral Information: Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Use water spray to keep fire-exposed containers cool. Flammable liquid and vapor. May be ignited by heat, sparks, and flame. Vapors may form an explosive mixture with air. Containers may explode when heated. Extinguishing Media: Do NOT use water directly on fire. For small fires, use water spray, dry chemical, carbon dioxide or chemical form. Use water spray to cool fire-exposed containers. Water may be ineffective. For large fires, use dry chemical, carbon dioxide, alcohol-resistant form, or water spray. Cool containers with flooding quantities of water until well after fire is out. Autoignition Temperature: 240 deg C (464.00 deg F) Autoignition femperature: 440 deg C (400.00 deg F) Flash Point: 32 deg C (89.60 deg F) Explosion Limits, lower:5.50 vol % Explosion Limits, upper:44.00 vol % NFPA Rating: (estimated) Health: 2; Flammability: 3; Instability: 0 **** SECTION 6 - ACCIDENTAL RELEASE MEASURES **** General Information: Use proper personal protective equipment as indicated in Section 8. Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Provide ventiation. A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor but may not prevent ignition in closed spaces. **** SECTION 7 - HANDLING and STORAGE **** Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be containers retain product residue, (liquid andor vapor), and can dangerous. Keep container tightly closed. Avoid contact with heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. **** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION **** Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use only under a chemical fume hood. Exposure Limits Chemical Name ACGIH NIOSH OSHA - Final PELS 200 ppm; 250 ppm 200 ppm TWA; 260 200 ppm TWA; 260 Methyl alcohol STEL; skin -potential for mg/m3 TWA 6000 mg/m3 TWA ppm IDLH cutaneous abaorption none listed none listed none listed Sodium methylate OSHA Vacated PELs: Methyl alcohol: 200 ppm TWA; 260 mg/m3 TWA Sodium methylate: No OSHA Vacated PELs are listed for this chemical. Personal Protective Equipment Eyes: Wear appropriate protective evenlasses or chemical 3,167

PAGE 08/12/03 ACCT: 463282001 DATE: 08/12/03 ACCT: 463382001 INDEX: D32234422 CAT NO: AC168660010 DATET PO NBR: P0095792 INDEX: D32234422 CAT NO: AC168600010 . PO NBR: P0095792 safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Ecotoxicity: Xicity: Fish: Rainbow trout: LC50 = 13-68 mg/L; 96 Hr.; 12 degrees CFish: Fathead Minnow: LC50 = 29400 mg/L; 96 Hr.; 25 degrees C, pH 7.63Fish: Rainbow trout: LC50 = 8000 mg/L; 48 Hr.; UnspecifiedBacteria: Phytobacterium phosphoreum: EC50 = 51,000-320,000 mg/L; 30 minutes; Skin: Wear appropriate protective gloves and clothing to prevent skin exposure. Clothing: Microtox test Wear appropriate protective clothing to minimize contact with skin. **** SECTION 13 - DISPOSAL CONSIDERATIONS **** Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate respirator when necessary. **** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES **** classification. RCRA P-Series: None listed. ysical State: Liquid RCRA U-Series: CAS# 67-56-1: waste number U154 Not available. odorless (Ignitable waste). lor: lor: Not available **** SECTION 14 - TRANSPORT INFORMATION **** 1: por Pressure: 50 mmHg @ 20 C Not available. US DOT por Density: Not applicable. mPas 20 deg C 93 deg C & 760.00mm Hg 'aporation Rate: Shipping Name: SODIUM METHYLATE SOLUTIONS Hazard Class: 3 .scosity: piling Point: UN Number: UN1289 Packing Group: III Canadian TDG eezing/Melting Point: 1 - 5 deg C composition Temperature: plubility in water: soluble in methanol No information available. eclfic Gravity/Density: .9450g/cm3 **** SECTION 15 - REGULATORY INFORMATION **** Not applicable. lecular Weight: US FEDERAL **** SECTION 10 - STABILITY AND REACTIVITY **** TSCA CAS# 67-56-1 is listed on the TSCA inventory. CAS# 124-41-4 is listed on the TSCA inventory. Chemical Stability: Stable under normal temperatures and pressures. Health & Safety Reporting List None of the chemicals are on the Health & Safety Reporting List. Chemical Test Rules None of the chemicals in this product are under a Chemical Test Rule. Conditions to Avoid: Incompatible materials, ignition sources, moisture, exposure to air, Incompatible materials, ignition sources, moisture, exposure to air, contact with water, oxidizers, evaporating to near dryness. Incompatibilities with Other Materials: Strong acids, active metals, nitric acid, isocyanates, alliphatic , amines, caustics (e.g. ammonia, ammonium hydroxide, calcium hydroxide, potassium hydroxide, sodium hydroxide), cyanuric chloride, Section 12b None of the chemicals are listed under TSCA Section 12b. TSCA Significant New Use Rule None of the chemicals in this material have a SNUR under TSCA. hydroxide, potassium hydroxide, sodium hydroxide), cyanuric chloride, diethyl zinc, perchloric acid, chromic anhydride, phosphorus trioxide, potassium-tert-butoxide, Oxidants (such as barium perchlorate, bromine, chlorine, hydrogen peroxide, lead perchlorate, perchloric acid, sodium hypochlorite)., acetyl bromide, alkyl aluminum salts, beryllium dihydride, carbon tetrachloride + metals, chloroform + heat, chloroform + sodium hydroxide, Attacks some forms of plastics, rubbers, and coatings. SARA RA CERCLA Hazardous Substances and corresponding RQs CAS# 67-56-1: 5000 lb final RQ; 2270 kg final RQ CAS# 124-41-4: 1000 lb final RQ; 454 kg final RQ SARA Section 302 Extremely Hazardous Substances None of the chemicals in this product have a TPQ. CAPB Codes SARA Codes CAS # 67-56-1: acute, flammable. CAS # 124-41-4: acute, flammable. Hazardous Decomposition Products: Carbon monoxide, carbon dioxide. Hazardous Polymerization: Has not been reported. Section 313 This material contains Methyl alcohol (CAS# 67-56-1, 70 0%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372. **** SECTION 11 - TOXICOLOGICAL INFORMATION **** This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors. RTECS# : CAS# 67-56-1: PC1400000 CAS# 124-41-4: PC3570000 LD50/LC50: LC50: CAS# 67-56-1: Draize test, rabbit, eye: 40 mg Moderate; Draize test, rabbit, eye: 100 mg/24H Moderate; Draize test, rabbit, skin: 20 mg/24H Moderate; Inhalation, rat: LC50 = 64000 ppm/4H; Oral, mouse: LD50 = 7300 mg/kg; Oral, rabbit: LD50 = 14200 mg/kg; Oral, rat: LD50 = 5628 mg/kg; Skin, rabbit: LD50 = 15800 mg/kg. CAS# 124-41-4: Oral, rat: LD50 = 2037 mg/kg. Clean Water Act: CAS# 124-41-4 is listed as a Hazardous Substance 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. Carcinogenicity: Methyl alcohol -Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. OSHA : None of the chemicals in this product are considered highly hazardous by OSHA. STATE Sodium methylate Methyl alcohol can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts. Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. Epidemiology: Methanoi and phenol have been shown to produce fetoxicity in the embryo or fetus in laboratory animals. Specific developmental abnormalities for methanol include the musculoskeletal, urogenital. Sodium methylate can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts. California No Significant Risk Level: and cardiovascular systems. Teratogenicity: None of the chemicals in this product are listed. European/International Regulations No data available. Reproductive Effects: European Labeling in Accordance with EC Directives Hazard Symbols: T F Reproductive effects have occurred in experimental animals. Risk Phrases: Neurotoxicity: No data available. R 11 Highly flammable. R 14 Reacts violently with water. R 23/25 Toxic by inhalation and if swallowed. R 11 Mutagenicity: No data available. R 34 Causes burns. Other Studies: The hazards associated with methanol may be seen in this product. Safety Phrases: **** SECTION 12 - ECOLOGICAL INFORMATION **** 3,168

S 7/8 Keep container tightly closed and dry. S 16 Keep away from sources of ignition - No 3,169

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DATE: 08/12/03 ACCT. 463262001 INDER: D32234422 CAT NO: AC168600010 PO NBR: P0095792 smoking. \$ 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. \$ 43A In case of fire, use dry chemical (never use s also in case of accident or if you feel unwell, seek medical advice immediately (show the label where

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possible).

WGK (Water Danger/Protection)

CAS# 67-56-1: 1 CAS# 124-41-4: 1

United Kingdom Occupational Exposure Limits CAS# 67-56-1: OES-United Kingdom, TWA 200 ppm TWA; 266 mg/m3 TWA CAS# 67-56-1: OES-United Kingdom, STEL 250 ppm STEL; 333 mg/m3 STEL CAS# 67-56-1: OES-United Kingdom, STEL 250 ppm STEL; 333 mg/m3 STEL

United Kingdom Maximum Exposure Limits

Canada

CAS# 67-56-1 is listed on Canada's DSL List. CAS# 124-41-4 is listed on Canada's DSL List. This product has a WHMIS classification of B2. D1A, D2B. CAS# 67-56-1 is listed on Canada's Ingredient Disclosure List. CAS# 124-41-4 is not listed on Canada's Ingredient Disclosure List. Exposure Limits

CAS# 67-56-1: OEL-ARAB Republic of Egypt: TWA 200 ppm (260 mg/m3); Skin

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 7/21/1999 Revision #4 Date: 8/02/2000

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or examplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.