

MSDS for Titanium diisopropoxide bis(2,4-pentanedionate), 75 wt% in 2-propanol \*\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*\* Titanium diisopropoxide bis(2,4-pentanedionate), 75 wt% in 2-propanol ACROS99169 Section 1 - Chemical Product and Company Identification MSDS Name Titanium diisopropoxide bis(2,4-pentanedionate), 75 wt% in 2-propanol Catalog Numbers 31900-0000, 31900-5000 Synonyms Company Identification (Europe) Acros Organics BVBA Janssen Pharmaceuticaaan 3a 2440 Geel, Belgium Company Identification (USA) Acros Organics One Reagent Lane Fairlawn, NJ 07410 For information in North America, call 800-ACROS-01 For information in Europe, call 0032(0) 14575211 For emergencies in the US, call CHEMTREC 800-424-9300 For emergencies in Europe, call 0032(0) 14575299 Section 2 - Composition, Information on Ingredients CAS# Chemical Name % EINECS# 67-63-0 Isopropyl alcohol 25% 200-661-7 17927-72-9 Titanium diisopropoxide bis(2,4-pentanedionate) 75 wt% 241-866-1 Hazard Symbols: F Risk Phrases: 11 Section 3 - Hazards Identification EMERGENCY OVERVIEW Highly flammable.Moisture sensitive. POTENTIAL HEALTH EFFECTS Eye May cause eye irritation. Skin May cause skin irritation. Ingestion May cause irritation of the digestive tract. Inhalation May cause respiratory tract irritation. Chronic Not available. Section 4 - First aid Measures Eyes Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid. Skin Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Ingestion Get medical aid. Wash mouth out with water. Inhalation Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Notes to Physician Treat symptomatically and supportively. Section 5 - Fire Fighting Measures General Information As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors can travel to a source of ignition and flash back. Flammable Liquid. Extinguishing Media Use water spray, dry chemical, carbon dioxide, or chemical foam. 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, dry sand or earth), then place into a chemical waste container. Do not use combustible materials such as saw dust. Remove all sources of ignition. Use a spark-proof tool. Section 7 - Handling and Storage Handling Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Storage Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area. Section 8 - Exposure Controls, Personal Protection Engineering Controls Use adequate ventilation to keep airborne concentrations low. PERSONAL PROTECTIVE EQUIPMENT Eyes 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 Wear appropriate protective gloves to prevent skin exposure. Clothing Wear appropriate protective clothing to prevent skin exposure. Respirators Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary. Section 9 - Physical and Chemical Properties Physical State Clear liquid Appearance yellow Odor Not available. pH Not available. Vapor Pressure Not available. Viscosity Not available. Boiling Point Not available. Freezing/Melting Point Not available. Autoignition Temperature Not available. Flash Point 12 deg C ( 53.60 deg F) Explosion Limits, lower Not available. Explosion Limits, upper Not available. Decomposition Temperature Solubility Specific Gravity/Density .9950g/cm3 Molecular Formula Molecular Weight 364.30 Section 10 - Stability and Reactivity Chemical Stability Not available. Conditions to Avoid Incompatible materials, ignition sources, exposure to moist air or water. Incompatibilities with Other Materials Strong oxidizing agents. Hazardous Decomposition Products Carbon monoxide, carbon dioxide, titanium/titanium oxides. Hazardous Polymerization Will not occur. Section 11 - Toxicological Information RTECS# CAS# 67-63-0 unlisted. CAS# 17927-72-9 unlisted. LD50/LC50 CAS# 67-63-0: Draize test, rabbit, eye: 100 mg Severe; Draize test, rabbit, eye: 10 mg Moderate; Draize test, rabbit, eye: 100 mg/24H Moderate; Draize test, rabbit, skin: 500 mg Mild; Inhalation, rat: LC50 = 16000 ppm/8H; Oral, mouse: LD50 = 3600 mg/kg; Oral, rabbit: LD50 = 6410 mg/kg; Oral, rat: LD50 = 5045 mg/kg; Skin, rabbit: LD50 = 12800 mg/kg. CAS# 17927-72-9. Carcinogenicity Isopropyl alcohol - IARC: Group 3 carcinogen Titanium diisopropoxide bis(2,4-pentanedionate) - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. See actual entry in RTECS for complete information. Section 12 - Ecological Information Section 13 - Disposal Considerations Dispose of in a manner consistent with federal, state, and local regulations. Section 14 - Transport Information IATA IMO RID/ADR Shipping Name: FLAMMABLE LIQUID, N.O.S.\* FLAMMABLE LIQUID, N.O.S. FLAMMABLE LIQUID, N.O.S. Hazard Class: 3 3.2 - UN Number: 1993 1993 1993 Packing Group: II II - Dangerous Goods Code: - - 3(3B) Section 15 - Regulatory Information European/International Regulations European Labeling in Accordance with EC Directives Hazard Symbols: F Risk Phrases: R 11 Highly flammable. Safety Phrases: S 7 Keep container tightly closed. S 16 Keep away from sources of ignition - No smoking. WGK (Water Danger/Protection) CAS# 67-63-0: 1 CAS# 17927-72-9: No information available. United Kingdom Occupational Exposure Limits CAS# 67-63-0: OES-United Kingdom, TWA 400 ppm TWA; 999 mg/m3 TWA CAS# 67-63-0: OES-United Kingdom, STEL 500 ppm STEL; 1250 mg/m3 STEL CAS# 67-63-0: OES-United Kingdom, STEL 500 ppm STEL; 1250 mg/m3 STEL Canada CAS# 67-63-0 is listed on Canada's DSL List. CAS# 17927-72-9 is listed on Canada's DSL List. CAS# 67-63-0 is not listed on Canada's Ingredient Disclosure List. CAS# 17927-72-9 is not listed on Canada's Ingredient Disclosure List. Exposure Limits CAS# 67-63-0: OEL-AUSTRALIA:TWA 400 ppm (980 mg/m3);STEL 500 ppm (1225 mg/m3) OEL-BELGIUM:TWA 400 ppm (985 mg/m3);STEL 500 ppm (1230 mg/m3) OEL-DENMARK:TWA 200 ppm (490 mg/m3);Skin OEL-FRANCE:STEL 400 ppm (980 mg/m3) OEL-GERMANY:TWA 400 ppm (980 mg/m3) OEL-JAPAN:STEL 400 ppm (980 mg/m3) OEL-THE NETHERLANDS:TWA 400 ppm (980 mg/m3);Skin OEL-THE PHILIPPINES:TWA 400 ppm (980 mg/m3) OEL-RUSSIA:STEL 400 ppm (10 mg/m3) OEL-SWEDEN:TWA 150 ppm (350 mg/m3);STEL 250 ppm (600 mg/m3) OEL-SWITZERLAND:TWA 400 ppm (980 mg/m3);STEL 800 ppm OEL-TURKEY:TWA 200 ppm (500 mg/m3) OEL-UNITED KINGDOM:TWA 400 ppm (980 mg/m3);STEL 500 ppm;Skin OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV US FEDERAL TSCA CAS# 67-63-0 is listed on the TSCA inventory. CAS# 17927-72-9 is listed on the TSCA inventory. Section 16 - Additional Information MSDS Creation Date 3/23/1998 Revision #0 Date Original. 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 exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages. -----