OXITENO

SAFETY DATA SHEET - SDS

Product : ALKEST TW 80 K **Review :** 06 **April 06th, 2015**

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product	ALKEST TW 80 K
Internal identification code	--
Relevant recommended uses	Industrial uses.
Company	Oxiteno México, S.A de C.V
Address	Insurgentes Sur 1602 Int. 101 Col.CréditoConstructor,Del.BenitoJuárez C.P.03940,México D.F
Emergency Phone number	Coatzacoalcos: 52 (921) 2110903 Guadalajara: 52 (33) 3697 0202 San Juan del Rio: 52 (427) 101 1034 SETIQ: 01800 00 214 00 / 52 (55) 5559 1588 (D.F.) For Chemical Emergency - Spill, Leak, Fire, Exposure or Accident: Call CHEMTREC Day or Night 800-424-9300 (Domestic North America) International, Call +1 703-527-3887 (collect calls accepted)

2. HAZARDS IDENTIFICATION

# Classification	Skin corrosion/irritation, Category 3 Serious eye demage/eye irritation, Category 2B
Label Elements	
# • Hazard Pictograms	Not applicable.
• Signal Word	WARNING
# • Hazard Statements	H316 Causes mild skin irritation. H320 Causes eye irritation.
# • Precautionary Statements	P264 Wash thoroughly after handling. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313 If skin irritation occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Brand or Generic Chemical Name	Ethoxylated Sorbitan Monooleate
Product Type	Substance.
# Synonyms	Ethoxylated sorbitan monooleate 20 EO; Polyoxyethylene sorbitan (20) monooleate; Sorbitan monooleate polyoxyehtylene (20); Monooleate sorbitan (20) PEG; Polysorbate 80; Polysorbate 80 (INCI Name).
CAS Number	9005-65-6.
EINECS/NLP number	500-019-9.
Impurities which contribute to the classification of the substance	There are no impurities which contribute to the classification of the substance.

4. FIRST-AID MEASURES

Procedure in Case of:

• Ingestion	Seek prompt medical attention. Do not induce vomiting. Vomiting should only be induced by medical personnel. If vomiting occurs, keep the head lower than chest to avoid aspiration into the lungs. Never give anything by mouth to an unconscious or convulsing person.
• Inhalation	Seek prompt medical attention. Remove victim to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.

• **Skin contact**	Remove contaminated clothing and shoes. Wash affected areas with plenty of running water, preferably under a shower. Seek prompt medical attention.
• **Eye contact**	Immediately flush with plenty of running water for at least 15 minutes, keeping eyelids open. Remove contact lenses if easy to do. Seek prompt medical attention.

 # Most important symptoms/effects, acute and delayed

Ingestion - Large doses may cause abdominal spasms and diarrhea. Aspiration could cause chemical pneumonitis.
Inhalation - May cause respiratory tract irritation.
Skin - It is considered to be nonirritating to human skin.
Eyes - Causes mild irritation.

Information for doctor	There is not known any specific antidote. Direct the treatment in accordance with the symptoms and clinical conditions of the patient.

5. FIRE-FIGHTING MEASURES

Extinguishing Media	In case of fire, use: Alcohol resistant foam. Water spray. Carbon dioxide (CO2). Dry chemical powder.
# Specific Hazards	Product is not flammable. In case of combustion it may generate carbon monoxide, besides CO2.
Protective measures for fire-fighters	Water jets should not be used directly on igniting products because it may disperse the material and intensify the fire. Self-contained breathing apparatus and protective clothing are required. Cool the intact fire-exposed containers with water spray and remove them.

NFPA Rating

• **Health**	0
• **Flammability**	1
• **Instability**	0
• **Special**	

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Isolate and signalize area. Keep heat and/or ignition sources away. Use personal protection equipment as indicated in Section 8, in order to avoid contact with spilled product.
Environmental Precautions	Prevent product from entering into soil and waterways. Notify the competent authorities if the product has run into drainage systems or watercourse or has contaminated the ground or vegetation.
Methods and materials for containment and cleaning up	Stop if possible. Contain and dike spilled product with earth or sand. Eliminate ignition or heat sources. Transfer to proper container. Collect remnants with an appropriate absorbent material. Wash the contaminated surface with water, which should be collected for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling	Use in a well-ventilated area. Avoid inhalation and contact with eyes, skin or clothing through proper protection. If occurs accidental contact, exposed area should be washed immediately. Emergency eyewashes and showers shall be located in accessible locations. Wash hands and face thoroughly after handling. Wash contaminated clothing before reuse.
Conditions for safe storage	Store in a covered and well-ventilated area, away from sunlight and sources of heat or open flames. Ensure that the storage location has adequate moisture, pressure and temperature. Keep containers tightly closed when not in use.
# Incompatibilities	Avoid contact with: Strong oxidizing agents.

Packaging Material	Recommended: Stainless steel. Carbon steel.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

# • TLV-TWA (ACGIH)	1,4-Dioxane: 20 ppm; 72 mg/m³ [Skin][A3]. Ethylene oxide: 1 ppm; 1.8 mg/m³ [A2]. Skin - Danger of cutaneous absorption. A2 - Suspected Human Carcinogen A3 - Confirmed animal carcinogen with unknown relevance to humans.
# • PEL-TWA (OSHA)	1,4-Dioxane: 100 ppm; 360 mg/m³ [Skin]. Ethylene oxide: 1 ppm. Skin - Danger of cutaneous absorption.
• TLV-STEL (ACGIH)	Not established.
# • LT(NR15)	Ethylene oxide: 39 ppm; 70 mg/m³.
• Odor Threshold	Not available.
# • IDLH	1,4-Dioxane: 500 ppm. Ethylene oxide: 800 ppm.
# • Biological Exposure Indices (ACGIH)	Not established.
Engineering Control Measures	In closed environments, this product should be handled keeping proper exhaust (general diluter or local exhauster).

Individual Protection Measures

• Eye Protection	Side shields or wide vision safety goggles.
• Skin Protection	PVC apron. It is recommended to adopt safety boots/shoes.
• Hand Protection	Gloves made of: Rubber. PVC (Polyvinyl chloride).
• Breathing equipment	In case of emergency or contact with high concentrations of the product, wear an air supplied mask or self contained breathing apparatus. It is recommended to wear face mask with organic vapors cartridge in case of exposure to vapors/aerosols.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid. Yellowish. Amber.
Odour and Odour threshold	Not available.
# pH	6.0 - 7.0 (sol. 5%).
Melting point/Freezing point	> 20 °C.
Initial Boiling Point and Boiling Range	> 100 °C.
Flash point	> 149 °C (open cup).
Evaporation rate	Not available.
# Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not available.
# Vapour pressure	0.001 kPa (25 °C).
# Vapour density (air = 1)	45.
# Relative density (water=1)	1.07 g/cm³ (25 °C).
# Apparent density	Not applicable.

Solubility	Soluble in water (20 ° C for 1 hour / concentration of 0.5%). Soluble in ethanol (25 ° C).
Partition Coefficient n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	300 - 500 cSt (25 °C).

10. STABILITY AND REACTIVITY

Chemical stability	Stable under normal conditions of use and storage.
Reactivity	No hazardous reactivity is expected.
Possibility of Hazardous Reactions	Not polymerize.
Conditions to avoid	High temperatures, ignition sources and prolonged exposure to the air.
# Incompatible materials	Avoid contact with: Strong oxidizing agents.
Hazardous decomposition products	In case of combustion it may generate carbon monoxide, besides CO2.
# Considerations on the use of the product	Not applicable.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	
# • Oral	LD50, rat: 34500 µL/kg. LD50, mouse: 25000 mg/kg. Probable lethal dose for humans is above 15 g/kg for 70 kg person (150 lb).
• Inhalation	Not available.
• Dermal	Not available.
# Skin corrosion/irritation	Reported to be nonirritating when applied undiluted to human skin for 48 hours. Produced inflammation, thickening and necrosis when applied to rabbits for one month.
Serious eye damage/eye irritation	Slight irritant (150 mg, rats)
# Respiratory or skin sensitization	Not a skin sensitizer in guinea-pigs.
# Germ cell mutagenicity	Negative results with sister chromatid exchange and Ames tests. Positive results with chromosome aberation test (induced rat liver S9).
# Carcinogenicity	There was no evidence of carcinogenic activity in female rats or in male or female mice which received diets containing 25,000 or 50,000 ppm for 2 years.
# Reproductive toxicity	Reproductive effects have been reported in animals. 10-20 day old male rat pups whose dams received chronic doses (1.25 mL/L) via drinking water exhibited an enhancement in their exploratory and locomotor activity during the diurnal period of the day. LOAEL, oral, rat: 500 mg/kg/day (based upon an increase in maternal relative liver weight). NOAEL, oral, rat: > 5000 mg/kg/day (based on prenatal development).
Specific target organ toxicity - Single exposure	Not available.
# Specific target organ toxicity - Repeated exposure	Daily doses of up to 15 grams given to adult humans produced no adverse effects. Mild to moderate central nervous system depression with ataxia, paralytic activity and reduced rectal temperature was reported after oral administration in laboratory animals. Pheochromocytomas in male rats as well as inflammation, squamous hyperplasia and ulcers of the forestomach of rats and mice have been reported in 2 year feeding studies.
Aspiration hazard	Not available.

12. ECOLOGICAL INFORMATION

# Ecotoxicity	The aquatic toxicity is not known.
# Persistence and Degradability	Not readily biodegradable. 32% after 28 days.
Bioaccumulative Potential	It is not expected to bioacumulate in the environment.

# Mobility in soil	It is expected to have high mobility in soil.
# Other Adverse Effects	Water hazard class 1: Slightly hazardous to water.

13. DISPOSAL CONSIDERATIONS

Recommended methods of disposal

• **Product**	The preferred options for disposal include reuse, recycling, co-processing, finding a use for a by-product, incineration or other thermal destruction process at licensed facilities. All procedures must follow specific operation standards in order to reduce health, safety and environmental risks. Perform co-processing, incineration or other thermal destruction process at facilities capable of minimizing or reducing air pollution emissions. The disposal must comply with federal, state, and local laws and regulations in accordance with the environmental agencies.
• **Product Remains**	Same method as indicated for product.
• **Packaging**	Do not cut or pierce the packaging, nor do hot work near them. Do not remove labels until the product has been fully removed and the packaging cleaned. The preferred options for disposal include reuse, recycling or reclamation at licensed facilities. All procedures must follow specific operation standards in order to reduce health, safety and environmental risks. The disposal must comply with local legislation and in accordance with standards from local environmental agencies.

14. TRANSPORT INFORMATION

Land Transport ANTT	Product not classified as hazardous in accordance with Resolution 420/2004 - Transport Ministry.
• **UN number**	N/A
• **Proper Shipping Name**	Not classified.
• **Hazard Class**	Not classified.
• **Hazard Number**	Not classified.
• **Packaging Group**	Not classified.
Maritime Transport IMDG	Product not classified as hazardous in accordance with IMDG Code - 2012 Edition - IMO (International Maritime Organization).
• **UN number**	N/A
• **Proper Shipping Name**	Not classified.
• **IMDG Class**	Not classified.
• **Packaging Group**	Not classified.
• **EmS**	Not classified.
Air Transport ICAO-TI and IATA-DGR	Product not classified as hazardous in accordance with Dangerous Goods Regulations - 55th Edition - IATA (International Air Transport Association).
• **UN number**	N/A
• **Proper Shipping Name**	Not classified.
• **ICAO/IATA Class**	Not classified.
• **Label**	Not classified.
• **Packaging Group**	Not classified.
Land Transportation ADR/RID (cross-border)	Product not classified as hazardous in accordance with Dangerous Goods by Road - Applicable from 1st January 2011 - Unece (United Nations Economic Commission for Europe).
• **UN number**	N/A
• **Proper Shipping Name**	Not classified.
• **ADR/RID class**	Not classified.
• **Packaging Group**	Not classified.

• Danger code (Kemler)	Not classified.
• Restriction Code	Not classified.
Land Transportation U.S DOT	Product not classified as hazardous in accordance with U.S. DOT (United States Departament of Transportation) - 49 CFR 172.101.
Packaging Type	Bulk and Non-bulk
Proper Shipping Name	Not classified.
Hazard Class or Division	Not classified.
ID Number	Not classified.
Packaging Group	Not classified.
Remarks	Not classified.

15. REGULATORY INFORMATION

Applicable standards	Resolution 420 / 2004 – Transport Ministry. Dangerous Goods by Road (ADR) – Available from January 1st, 2011 – Unece (United Nations Economic Commission for Europe). U.S.A Department of Transportation – DOT – 49 CFR 172.101. Dangerous Goods Regulations - 55th Edition - IATA (International Air Transport Association). IMDG Code - 2012 Edition - IMO (International Maritime Organization).
OSHA Hazard Communication Standard	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
SARA Title III - Sections 311 / 312 (40 CFR 370 Subparts B and C)	Immediate (Acute) Health Hazard: Yes. Delayed (Chronic) Health Hazard: No. Fire Hazard: No. Sudden Release of Pressure Hazard: No. Reactive Hazard: No.
SARA Title III - Section 313 (40 CFR 372.65)	This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.
# SARA Title III - Section 302 (40 CFR 355 Appendix A)	Ethylene oxide (CAS 75-21-8): max. 1 ppm. TPQ: 1000 lbs.
# CERCLA (40 CFR 302.4) / SARA 304	1,4-Dioxane (CAS 123-91-1): max. 10 ppm. RQ: 100 lbs. Ethylene oxide (CAS 75-21-8): max. 1 ppm. RQ 10 lbs. Reportable Quantity (RQ) of this product is 10000000 pounds based upon 1,4-Dioxane / Ethylene oxide which yielded the lowest resultant RQ according to the following formula: CERCLA ingredient RQ/ % of that ingredient in the product.
New Jersey Hazardous Substance List	1,4-Dioxane: Substance# 0789 (Special Health Hazard Code: CA – Carcinogen; F3 – Flammable 3rd degree). Ethylene oxide: Substance# 0882 (Special Health Hazard Code: CA – Carcinogen; MU – Mutagen; TE – Teratogen; F4 – Flammable 4th degree; R3 – Reactive 3rd degree).
California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act)	WARNING! This product contains a chemical known to the State of California to cause cancer. - 1,4-Dioxane. - Ethylene oxide. WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. - Ethylene oxide.
Pennsylvania Hazardous Substance List	1,4-Dioxane (CAS 123-91-1) and Ethylene oxide (CAS 75-21-8): Listed also as an environmental hazard and as a special hazardous substance.
Inventory Status	United States & Puerto Rico – Toxic Substances Control Act (TSCA) Inventory: Yes Canada – Domestic Substances List (DSL): Yes Canada – Non-Domestic Substances List (NDSL): No Europe – European Inventory of Existing Commercial Chemical Substances (EINECS): No Europe – European List of Notified Chemical Substances (ELINCS): No Australia – Australian Inventory of Chemical Substances (AICS): Yes Philippines – Philippine Inventory of Chemicals and Chemical Substances (PICCS): Yes Japan – Inventory of Existing and New Chemical Substances (ENCS): Yes Korea – Existing Chemicals List (ECL): Yes Canada – Non-Domestic Substances List (NDSL): Yes New Zealand – New Zealand 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

# Remarks	Not applicable.

# Sources	2013 TLVs and BEIs – Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices – ACGIH 2013 Guide to Occupational Exposure Values – ACGIH. LOLI - ChemADVISOR's Regulatory Database. eChemPortal - The Global Portal to Information on Chemical Substances. European Chemicals Agency - http://echa.europa.eu/.
Abbreviations and acronyms	ACGIH: American Conference of Governmental Industrial Hygienists (USA). ADR: European agreement concerning the international carriage of dangerous goods by road. CAS: Chemical Abstracts Service (American Chemical Society - EUA). EC50: Average concentration for 50% of maximum response. LC: Lethal Concentration - substance concentration in the environment that leads to death after a certain period of exposure. LC50: Lethal concentration for 50% of the test animals. BOD: Biochemical Oxygen Demand. LD50: Lethal Dose for 50% of the test animals. LDLo: Lethal Dose Low - minimal amount of a chemical lethal to animals in testing. EINECS: European Inventory of Existing Commercial Chemical Substances. GHS: Globally Harmonized System of Classification and Labelling of Chemicals. IARC: International Agency for Research on Cancer. IATA: International Air Transport Association. IATA-DGR: Dangerous Goods by Regulations by the IATA ICAO: International Civil Aviation Organization ICAO-TI: Technical Instructions by the ICAO. IMDG: International Maritime Code for Dangerous Goods. IDLH - Immediately Dangerous To Life or Health Concentrations. Kow: Octanol/water partition coefficient. LT (NR 15): Exposure limits of the standard number 15 - Unhealthy Operations and Activities from the Ministry of Labour and Employment of Brazil. LOAEL: Lowest Adverse Effect Level LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database NLP: No Longer Polymers. NIOSH: National Institute for Occupational Safety and Health. NOAEL: No Observed Adverse Effect Level NTP: National Toxicology Program. OSHA: Occupational Safety and Health Administration (EUA). PEL-TWA: Exposure Limit Allowed – time-weighted average. RID: Regulations concerning the international transport of dangerous goods by rail. TLV-STEL: Tolerance Limit - short period of time (15 minutes, maximum). TLV-TWA: Tolerance Limit – time weighted average. WGK: Wassergefährdungsklasse (Germany) - Water Hazard Class.

This Safety Data Sheet was authoring according to our current knowledge and experience, however cannot imply guarantee of any nature. Considering the variety of factors that can affect their process or application, the information on this sheet does not exempt the processors from the responsibility of executing their own tests and experiments.

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