

SAFETY DATA SHEET - SDS

Product : ALKEST TW 80 K

Review : 02

May 29th, 2013

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 1685, Piso 11 Col. Gpe. Inn. C. P. 01020 México, D.F.
Phone number	(55) 5322-0560
Fax	(55) 5661-6242
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 damage/eye irritation, Category 2B Specific target organ toxicity - single exposure, Category 3 (respiratory system)
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Label Elements

• Hazard Pictograms



• Signal Word

WARNING

• Hazard Statements

H316 Causes mild skin irritation.
H320 Causes eye irritation.
H335 May cause respiratory irritation.

• Precautionary Statements

P261 Avoid breathing gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents / container in accordance with current legislation.

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 polyoxyethylene (20); Monooleate sorbitan (20) PEG; Polysorbate 80; Polysorbate 80 (INCI - CTFA).
CAS Number	9005-65-6.
EINECS/NLP number	500-019-9.

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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- Toxic effects are not expected due to significant acute toxic ingestion of small amounts of this product. In large amounts may cause: Intestinal obstruction.

Inhalation- May cause: Irritation of the nose, throat and respiratory tract.

Skin- Causes: Slight irritation.

Eyes- Causes: 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

Slight fire hazard.
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.

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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. Compounds with high affinity for hydroxyl groups.
Packaging Material	Recommended: Stainless steel. Carbon steel.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters	
• TLV-TWA (ACGIH)	Not established.
• PEL-TWA (OSHA)	Not established.
• TLV-STEL (ACGIH)	Not established.
• LT(NR15)	Not established.
• Odor Threshold	Not available.
• IDLH	Not available.
• Biological Exposure Indices (ACGIH)	Not available.
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 available.

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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/cm ³ (25 °C).
Apparent density	Not available.
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. Compounds with high affinity for hydroxyl groups.
Hazardous decomposition products	In case of combustion it may generate carbon monoxide, besides CO ₂ .
Considerations on the use of the product	Not available.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

- **Oral** LD50, rat: 34500 µL/kg.
LD50, mouse: 25000 mg/kg.
- **Inhalation** Not available.
- **Dermal** Not available.

Skin corrosion/irritation Not available.**Serious eye damage/eye irritation** Slight irritant (150 mg, rats)**Respiratory or skin sensitization** Not available.**Germ cell mutagenicity** Not available.**Carcinogenicity** There are no known serious chronic effects of the product. Tests with pregnant rats that received the product orally, in doses of 500 mg/kg/day, showed that the product does not affect the development or alter the mortality of the fetuses. There are no references on the mutagenic or carcinogenic activity of the product.**Reproductive toxicity** Not available.**Specific target organ toxicity - Single exposure** Not available.**Specific target organ toxicity - Repeated exposure** Not available.**Aspiration hazard** Not available.

12. ECOLOGICAL INFORMATION

Ecotoxicity It has low toxicity to aquatic life.

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Persistence and Degradability	Completely biodegradable.
Bioaccumulative Potential	It is not expected to bioaccumulate in the environment.
Mobility in soil	The product is slightly volatile and water soluble. It is expected to have high mobility in soil.
Other Adverse Effects	Not available.

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 - 2010 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 - 52nd 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.

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- **ADR/RID class** Not classified.
- **Packaging Group** Not classified.
- **Danger code (Kemler)** Not classified.
- **Restriction Code** Not classified.

15. REGULATORY INFORMATION

Applicable standards Resolution 420 / 2004 – Transport Ministry.
IMDG Code - 2010 Edition - IMO (International Maritime Organization).
Dangerous Goods Regulations - 52nd Edition - IATA (International Air Transport Association).
Dangerous Goods by Road (ADR) – Available from January 1st, 2011 – Unece (United Nations Economic Commission for Europe).
Brazilian Technical Standards Association (ABNT) – NBR 14725 - Part 1 to 4.

16. OTHER INFORMATION

Remarks Not available.

Sources SAX's Dangerous Properties of Industrial Materials - 10th Edition, Ricard J. Lewis, SR John Wiley & Sons, Inc, 2000.
2011 TLVs and BEIs – Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices – ACGIH.
2011 Guide to Occupational Exposure Values – ACGIH.
NTP - National Toxicity Program, National Institute of Environmental Health (EUA).
European Chemicals Bureau - <http://ecb.jrc.it>
"Developmental Toxicology of Polyoxyethylene Sorbitan Monooleate (CAS #9005-65-6) in Sprague-Dawley CD® Rats" Outubro 1992.

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 authored 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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