

MSDS

(Material Safety Data Sheet)

Material name	CAS No.	KE No.	UN No.	EU No.
Sodium C14- 16 Olefin Sulfonate	68439- 57- 6	KE- 32477		931- 534- 0

1. Chemical Product and Company Identification

- a. Product Name ASCO® AOS- 35(M)
- b. Recommendation & Limit of the product
 Recommendation of the product Surface- active agents
 Limit the use Do not use for any other purpose
- c. Supplier Information
 Company Name AK ChemTech Co., Ltd
 Address #1547- 95, Chungui- Ro, Cheongsan- Myeon, Chungnam, Korea
 Tel +82- 41- 940- 6115

2. Hazards Identification

a. Classification of the substance or mixture

Skin corrosive / irritation	2 category
Serious eye damage / eye irritation	2 category

b. GHS Label elements, including precautionary statements

Pictograms



Signal word

Warning

Hazard statements

H315 Causes skin irritation.
 H319 Causes serious eye damage

Precautionary statements

Prevention

P264 Wash hands thoroughly after handling
 P280 Wear protective gloves/protective clothing/eye protection/face protection

Corresponding

P302+P352 If on skin, gently wash with plenty of soap and water
 P305+P351+P338 IF ON SKIN: Wash with plenty of water/...
 P337+P313 If eye irritation persists : Get medical advice/attention.
 P310 Immediately call a POISON CENTER/doctor/...
 P321 Specific treatment is urgen.
 P332+P313 Contact a doctor if skin irritation occurs
 P362+P364 Take off contaminated clothing and wash before reuse.

Storage

Disposal

c. Other hazards which do not result in classification

Not available.

3. Composition and Information on Ingredients

Composition

Chemical name	Common name and Synonym	CAS No.	%
Sodium C14- 16 Olefin Sulfonate	AOS (Alpha- Olefine sulfonates)	68439- 57- 6	34.0 ~ 38.5
Sodium sulfate		7757- 82- 6	0.0 ~ 1.5
Water		7732- 18- 5	60.0 ~ 66.0

4. First Aid Measures

- a. Eye contact
Immediately hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Center or a doctor, or for at least 15 minutes
- b. Skin contact
Immediately flush body and clothes with large amounts of water, using safety shower if available.
Quickly remove all contaminated clothing, including footwear.
Wash skin and hair with running water.
Continue flushing with water until advised to stop by the Poisons Information Center.
Transport to hospital, or doctor
- c. Inhalation
If fumes or combustion products are inhaled remove from contaminated area.
Lay patient down. Keep warm and rested.
Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag- valve mask device, or pocket mask as trained. Perform CPR if necessary.
Transport to hospital, or doctor, without delay.
- d. Ingestion
For advice, contact a Poisons Information Center or a doctor at once

5. Fire and Explosion Data

- a. Flammability of the Product
Not available.
- b. Auto- Ignition Temperature
Not available.
- c. Flash Points
Not available.
- d. Flammable Limits
Not available.
- e. Products of Combustion
These products are carbon oxides (CO, CO₂), sulfur oxides (SO₂, SO₃...).
- f. Fire Hazards in Presence of Various Substances
Slightly flammable to flammable in presence of heat.
- g. Explosion Hazards in Presence of Various Substances
Risks of explosion of the product in presence of mechanical impact: Not available.
Slightly explosive in presence of open flames and sparks
- h. Fire Fighting Media and Instructions
SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet
- i. Special Remarks on Fire Hazards
When heated to decomposition it emits toxic fumes of sulfur oxides, and sodium oxide
- j. Special Remarks on Explosion Hazards
Not available.

6. Accidental Release Measures

- | | |
|----------------|---|
| a. Small Spill | <p>Remove all ignition sources.
 Clean up all spills immediately.
 Avoid contact with skin and eyes.
 Control personal contact by using protective equipment.
 Use dry clean up procedures and avoid generating dust.
 Place in a suitable labelled container for waste disposal.</p> |
| b. Large Spill | <p>Clear area of personnel and move upwind.
 Alert Emergency Responders and tell them location and nature of hazard.
 Wear full body protective clothing with breathing apparatus.
 Prevent, by any means available, spillage from entering drains or water course.
 Consider evacuation.
 Stop leak if safe to do so.
 Contain spill with sand, earth or vermiculite.
 Collect recoverable product into labeled containers for recycling.
 Neutralize/decontaminate residue.
 Collect solid residues and seal in labeled drums for disposal.
 Wash area and prevent runoff into drains.
 After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re- using.
 If contamination of drains or waterways occurs, advise emergency services</p> |

7. Handling and Storage

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|---|---|
| a. Precautions for safe handling | <p>Use material after mixing enough and check pH value if stored for over 3 months or at high temperature condition.
 Use material after melting evenly, in case material is frozen in winter.
 Do not open drums when melting material.
 When melting material, proceed within 48 hours at no higher than 50 degrees.
 Avoid direct contact of a heater with drums or materials when melting material.</p> |
| b. Conditions for safe storage
(including incompatibilities) | <p>Store and handle in accordance with all current regulations.
 Store in cool place. Keep containers dry and well-ventilated place.
 Minimize temperature change. Optimal storage temperature is 15 ~ 30°C.
 Keep material separated from incompatible substances.</p> |

8. Exposure Controls/Personal Protection

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|---|--|
| a. Engineering Controls | <p>Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.</p> |
| b. Personal Protection | <p>Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves</p> |
| c. Personal Protection in Case of a Large Spill | <p>Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product</p> |
| d. Exposure Limits | <p>Not available</p> |

9. Physical and Chemical Properties

a. Appearance	Liquid
b. Color	Yellow
c. Odor	Not available
d. pH	11.5 ~ 13.5 (at 25°C)
e. Melting point	Not available
f. Boiling point	Not available
g. Flash point	Not available
h. Evaporation Rate	Not available
i. Flammable	Not available
j. Upper Explosive Limit	Not available
k. Vapour Pressure (mmHG)	Not available
l. Solubility in water (g/L)	400000 mg/ℓ (25°C)
m. Relative Vapor Density (air=1)	Not available
n. Specific Gravity (water=1)	Not available
o. Water partition coefficient	Not available
p. Auto-ignition temperature	Not available
q. Decomposition Temp	Not available
r. Viscosity	Not available
s. Molecular Weight	308

10. Stability and Reactivity Data

a. Stability	The product is stable
b. Instability Temperature	Not available
c. Conditions of Instability	Excess heat, dust generation, incompatible materials
d. Incompatibility with various substances	Reactive with oxidizing agents
e. Corrosivity	Non-corrosive in presence of glass
f. Special Remarks on Reactivity	Not available
g. Special Remarks on Corrosivity	Not available
h. Polymerization	Will not occur

11. Toxicological Information

a. Routes of Entry	Not available
b. Toxicity to Animals	Oral : LD50 > 2000 mg/kg Rat Dermal : LD50 6300- 13500 mg/kg Rabbit
c. Chronic Effects on Humans	Not available
d. Other Toxic Effects on Humans	Not available
e. Special Remarks on Toxicity to Animals	Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (sensitizer)
f. Special Remarks on Chronic Effects on Humans	May cause adverse reproductive effects based on animal test data. No human data found.
g. Special Remarks on other Toxic Effects on Humans	Eyes: Causes moderate eye irritation. Inhalation: Material is irritating to mucous membranes and upper respiratory tract. May cause allergic respiratory reaction. Ingestion: Causes gastrointestinal tract irritation with nausea, vomiting, hypermotility, diarrhea, and bloating. May also affect behavior (ataxia, somnolence), and cardiovascular system. Chronic Potential Health Effects: Skin: Prolonged or repeated skin contact may cause allergic dermatitis. Ingestion: Prolonged or repeated ingestion may affect the liver. Inhalation: Prolonged or repeated inhalation may cause allergic respiratory reaction (asthma).

12. Ecological Information

a. Ecotoxicity	LC50 1- 10 mg/ℓ 96 hr Brachydanio rerio (Fish)
b. BOD5 and COD	Not available
c. Products of Biodegradation	85 (%) 28 day
d. Toxicity of the Products of Biodegradation	Not available
e. Special Remarks on the Products of Biodegradation	Condenasability : BCF 70.79

13. Disposal Considerations

a. Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations
b. Disposal Considerations	Dispose of contents in accordance with applicable laws

14. Transport Information

a. UN number	Not available
b. Shipping Name	Not available
c. Dangerous goods class	Not available
d. Packing group	Not available
e. Marine pollutant	Not available
f. Special safety measures	
In case of fire emergency	Not available
In case of spill emergency	Not available

15. Other Regulatory Information

a. Federal and State Regulations	Not available
b. Other Regulations	Not available
c. Other Classifications	Not available

16. Other Information

a. References	International Uniform Chemical Information Database(IUCLID)(http://ecb.jrc.it/esis)(성상) International Uniform Chemical Information Database(IUCLID)(http://ecb.jrc.it/esis)(pH) International Uniform Chemical Information Database(IUCLID)(http://ecb.jrc.it/esis)(m.p) International Uniform Chemical Information Database(IUCLID)(http://ecb.jrc.it/esis) (Solubility) Quantitative Structure Activity Relation(QSAR) International Uniform Chemical Information Database(IUCLID)(http://ecb.jrc.it/esis)(Oral) OECD Screening Information Data Set(http://cs3-hq.oecd.org/scripts/hpw/)(Dermal) International Uniform Chemical Information Database(IUCLID)(http://ecb.jrc.it/esis) (Skin corrosive/skin irritation) International Uniform Chemical Information Database(IUCLID)(http://ecb.jrc.it/esis) (Serious eye damage/eye irritation) International Uniform Chemical Information Database(IUCLID)(http://ecb.jrc.it/esis) International Uniform Chemical Information Database(IUCLID)(http://ecb.jrc.it/esis) SIDS(Fish) The ECOTOXicology database (ECOTOX)(http://cfpub.epa.gov/ECOTOX/quick_query.htm) (Crustacea) Quantitative Structure Activity Relation(QSAR)(Persistence) Quantitative Structure Activity Relation(QSAR)(Condenasability) IUCLID(Biodegradation)
b. Other Special Considerations	Not available
c. Created	2012- 12- 08
d. Last Updated	2021- 01- 27

Our data and the MSDS is written, provided by the Korea Occupational Safety and Health Agency with reference to the MSDS edit, modify some data.