



## Material Safety Data Sheet

According to 91/155 EC

Printing date 6/30/2014

Revision date 10/20/2011

Version 2.01

### 1. Identification of substance

- **Product details**

- **Trade name: DK-110 ADDITION AGENT**

- **Article number:**

- **SD - No. AD-701-DK110V2**

- **Manufacturer / Supplier:**

A&D (Asia Pacific) Company Limited  
Flat D, 13<sup>th</sup> Floor, Hung Cheung Industrial Center (Phase 2),  
10 Tsing Yeung Circuit, Tuen Mun, New Territories,  
Hong Kong      Tel: (852) 2786 4091      Fax: (852) 2786 4427

- **Informing department: Quality Management Division**

- **Emergency information: 2786 4091**

### 2. Composition / Data on components:

- Chemical characterization

- Description:

Mixture of the substances listed below harmless additions.

- Dangerous components:

CAS No.	Designation	%	Index	R-phrases
15471-17-7	1-(3-Sulfopropyl)-pyridinium-betaine	12 - 20	Xn	23/24/25

### 3. Hazards identification

- **Hazard designation**      Void

- **Information pertaining to**      Void

**particular dangers for man and environment**

- **Classification system**      The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

### 4. First aid measures

- **General information**      No special measures required

- **After inhalation**      Supply fresh air; consult doctor in case of symptoms

- **After skin contact.**      May cause transient irritation

- **After eye contact**      Rinse opened eye for several minutes under running water.

- **After swallowing**      In case of persistent symptoms consult doctor.

### 5. Fire fighting measures

- **Suitable extinguishing agents**      CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet.

- **Protective equipment**      No special measures required.  
For dust: Filter DN 3181 A 2



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6. Accidental release measures

- **Person-related safety precautions** Not required
- **Measures for environmental protection** Dilute with much water
- **Measures for cleaning / collecting** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust)  
Adsorb with liquid-binding material and dispose at a waste depot or incineration plant, which is especially equipped to handle hazardous waste.
- **Additional information** No dangerous materials are released.

7. Handling and storage

- **Handling**
- **Information for safe handlings** No special measures required. Keep containers tightly sealed.
- **Information about protection against explosions and fires** No special measures required.
- **Storage**
- **Requirements to be met by store rooms and containers** No special requirements.
- **Information about storage in one common storage facility** Store away from foodstuffs.
- **Further information about storage conditions** None.
- **Storage class**
- **Class according to regulation on inflammable liquids** Void.

8. Exposure controls and personal protection

- **Additional information about design of technical systems** No further data; see item 7.
- **Components with critical values that require monitoring at the workplace:**

CAS NO.	Designation of material	Type	Value	Unit
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.				
- **Additional information** The lists that were valid during the compilation were used as basis.
- **Personal protect equipment**
- **General protective and hygienic measures** The usual precautions measures should adhered to in handling the chemicals.
- **Breathing equipment** Not required.
- **Protection of hands** Void.
- **Eye protection** Safety glasses recommended during refilling.

9. Physical and chemical properties:

- **Form** Fluid
- **Colour** Colorless to Yellow. According to product specification



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• <b>Smell</b>	odorless		
	<u>Value / Range</u>	<u>Unit</u>	<u>Method</u>
• <b>Change in condition</b>	Not determined		
• <b>Melting point / Melting range</b>	Not determined		
• <b>Boiling point / Boiling range</b>	120 °C		
• <b>Flash point</b>	Will not burn, > 250°C		
• <b>Ignition temperature</b>	Will not ignite		
• <b>Self-inflammability</b>	Product is not self-igniting		
• <b>Danger of explosion</b>	Product is not explosive		
• See item 7			
• <b>Steam pressure</b>	at 20 °C	23 mbar	
• <b>Density</b>	at 20 °C	1.08-1.15 g/cm <sup>3</sup>	
• <b>Solubility in / Miscibility with</b>	Fully miscible		
• <b>Water</b>			
• <b>pH-value</b> (100 g/l) at 20 °C	4 - 7		
• <b>Solvent content</b>			
• <b>Organic solvents</b>	0.0 %		
• <b>Water</b>	1.0 mixable		
10. <u>Stability and reactivity</u>			
• <b>Thermal decomposition / conditions to be avoided</b>	No decomposition if used according to specifications.		
• <b>Dangerous reactions</b>	No dangerous reactions known.		
• <b>Dangerous products of composition</b>	No dangerous decomposition products known.		
11. <u>Toxicological information</u>			
• <b>Acute toxicity</b>			
• <b>LD/LC50 values that are relevant for classifications</b>			
Components	Type	Value	Species
1-(3-Sulfopropyl)-pyridinium-betaine	Oral LD50	1,505 mg/kg	Rat
• <b>Primary irritant effect</b>			
• <b>On the skin</b>	No irritant effect		
• <b>On the eye</b>	No irritant effect		
• <b>Sensitization</b>	No sensitizing effect known		
• <b>Additional toxicological information</b>	The product is not subject to classification according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.		



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- **General notes** Water hazard class 1 (Self-assessment):  
Slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

13. Disposal considerations

- **Product**
- **Recommendation** Smaller quantities can be disposed with household garbage.
- **Waste disposal key number** 59301
- **Uncleaned packagings**
- **Recommendation**
- **Recommended cleaning agent** Disposal must be made according to official regulations.  
Water, if necessary with cleaning agent.

14. Transport information

- Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)
- ADR/RID-GGVS/E Class : -
- Number/Letter: -
- Kemler Number: -
- UN-number -
- Designation of goods: Non dangerous goods
- Maritime transport IMDG/GGVSea:
- IMDG/GGVSea Class : -
- Page: -
- UN Number: -
- Packaging group: -
- EMS Number -
- MFAG: -
- Correct technical name: Non Dangerous Goods
- Air transport ICAO-TI and IATA-DGR:
- ICAO/ITAT Class: -
- UN/ID Number: -
- Packaging group: -
- Correct technical name: Non Dangerous Goods

15. Regulatory information

- **Designation according to EC guidelines:** Observe the normal safety regulations when handling chemicals.  
The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffv).



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- **National regulations**
- **Classification according to VbF:** Void.
- **Water hazard class:** Water hazard class 1 (Self-assessment) : slight hazardous for water.

16. Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing data specification sheet:** QMS-TD-701-DK110V2
- **Contacts:** Albert Lee