



Safety Data Sheet

Section 1 - Identification of the Substance/Mixture and of the Company

1.1 Product identifier

Product Name: Technicure™ K-10 M

Description: Aromatic Amine Curing Agent (4,4'-DDS micropulverized)

Synonyms: 4,4'-Diaminodiphenyl sulfone; 4,4'-Sulfonyldianiline

Manufacturer/Supplier: ACCI Specialty Materials

1.2 Relevant identified uses of the preparation and uses identified against use:

Hardener for epoxy coatings
For professional/industrial use only.

1.3 Details of the supplier of the safety data sheet

ACCI Specialty Materials
1600 W. Blancke Street
Linden, NJ 07036 USA

Telephone: (908) 474-9393 **Fax:** (908) 474-9388
Web: www.accatalysts.com
Contact: info@ac-catalysts.com

1.4 Emergency telephone number

CHEMTREC (24 hours): 1-800-424-9300
International: +001-703-527-3887

Section 2 - Hazards Identification

2.1 Classification of the substance/mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Acute oral toxicity, cat.	H302
STOT-se, cat. 2	H371
STOT-re, cat.2	H373
Aquatic chronic, cat. 2	H411

2.2 Labeling elements

2.2.1 Labeling according Regulation (EC) No 1272/2008 [CLP]

Signal Word: Warning

Hazard pictograms: GHS08, GHS07, GHS09



Hazard statements

H302 Harmful if swallowed.

H371 May cause damage to the blood tissue through oral exposure.

H373 May cause damage to the liver, spleen and blood tissue through prolonged or repeated oral exposure.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

- P260** Do not breathe dusts.
- P264** Wash hands and skin contact areas thoroughly after handling.
- P270** Do not eat, drink or smoke when using this product.
- P273** Avoid release to the environment.
- P301 + P312** IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
- P330** Rinse mouth.
- P391** Collect spillage.
- P405** Store locked up.
- P501** Dispose of contents/container to a licensed/permitted incinerator or other thermal destruction facility in compliance with all applicable environmental control regulations.

2.3 OSHA GHS classification

This product is classified as hazardous as defined within the GHS OSHA Hazard Communication Standard 29CFR1910.1200.

Section 3 - Composition / Information on Ingredients

3.1 Substances

<u>Component</u>	<u>Concentration</u>		
4,4'-Diaminodiphenylsulfone	>99%		
CAS No. 80-08-0			
EINECS No. 201-248-4			
GHS/CLP: Acute tox. (oral) 4		H302	
	STOT-se (oral) 2		H371
	STOT-re (oral) 2		H373
	Aquatic chronic 2		H411

3.2 Mixtures N/A

Section 4 - First Aid Measures

4.1 Description of First Aid measures

General advice: consult a physician; show this SDS to doctor in attendance.

In the event of skin contact: Wash thoroughly with soap and water for at least 15 minutes. If irritation, rash or other adverse effects develop, get medical attention.

In the event of eye contact: Bathe the eye with running water for at least 15 minutes, lifting upper and lower eyelids. If adverse symptoms develop, get medical attention.

In the event of swallowing: Do NOT induce vomiting. Rinse out mouth with water; drink Several glasses of water. Call nearest Poison Center or physician immediately.

In the event of exposure by inhalation: Move person to fresh air and keep at rest in a position comfortable for breathing; if breathing is irregular, provide artificial respiration; if there are breathing difficulties, administer oxygen; get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed; may cause damage to organs following a single exposure if swallowed.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Following severe exposure the patient should be kept under medical surveillance for at least 48 hours.

Section 5 - Fire Fighting Measures

5.1 Extinguishing media

Carbon dioxide, alcohol resistant foam, dry chemical, water fog, limestone powder; use water spray to cool fire-exposed containers.

5.2 Special hazards arising from the substance or mixture

Dusts may pose a fire and explosion hazard. Exposure to decomposition products may be harmful to health; combustion products may include but are not limited to: carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides; the formation of hydrocarbon fragments is possible in the initial stages of fire (especially in between 400°C and 700°C); smoke may contain particles of the original material as well.

5.3 Advice for fire fighters: Use protective fire fighting clothing and positive pressure self-contained breathing apparatus to protect against potential harmful and/or irritating fumes. Do not use high volume water jet as this may create dusting and possible form explosive dust/air mixtures.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Isolate area; ensure adequate ventilation; use appropriate personal protection equipment; avoid breathing dusts; keep unnecessary and unprotected personnel from entering the involved area.

6.2 Environmental precautions:

Halt the flow of material as soon as practical using appropriate barriers. Prevent contamination of soil and water. Prevent from entering drains or waterways.

6.3 Methods and material for containment and cleaning up

Collect into suitable waste disposal containers. Reuse uncontaminated material when possible. Wash spillage site with large amounts of water. Dispose of in accordance with applicable local and federal environmental control laws and regulations.

6.4 Reference to other sections

For more information on exposure controls, personal protection and disposal, review data in section 8 and section 13 of this SDS.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Avoid contact with eyes, skin and clothing; wash thoroughly after handling. Use with adequate ventilation. Do not breathe dust; use recommended personal protective equipment; wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry place with adequate ventilation. Store between 2° to 40°C (36°-104°F)

Incompatibilities: Do not store together with strong oxidizing agents.

Section 8 - Exposure Controls / Personal Protection

8.1 Control parameters

Occupational exposure limits: No OSHA PEL has been established for this substance.

OEL/Russia: STEL: 5 mg/m³

8.1.2 Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference can be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents for the determination of hazardous substances.

8.2 Exposure Controls:

Follow good industrial workplace practices; do not eat, drink or smoke while handling; wash

hands before breaks and at end of workshift; follow recommendations in this SDS.

8.2.1 Appropriate engineering controls

Ensure adequate ventilation through local exhaust to control airborne concentrations.

8.2.2 Individual protection measures, such as personal protective equipment

8.2.2.1 Eye/face protection

Wear safety glasses with side shields or chemical safety goggles.
29CFR1910.133 and European Standard EN166.

Refer to OSHA

8.2.2.2 Skin protection

Wear suitable protective clothing as necessary to minimize skin contact. Refer to OSHA 29CFR1910.132 and 1910.136 for OSHA approved standards on protective clothing and footwear.

8.2.2.3 Respiratory protection

Respiratory protection is not required under normal conditions of use. Where protection from nuisance levels of dusts is desired a NIOSH approved dust mask may be used, e.g., particle filter with medium efficiency for solid particles (EN143 or 149, Type P2 or FFP2). Respirator use should follow the guidelines of an established respiratory protection program in compliance with 29CFR1910.134 (also see Canadian CSA Standard Z94.4-93, European Standard CR 529).

8.2.2.4 Hand protection

Wear nitrile rubber or other suitable protective gloves; refer to European Standard EN374. Some options include: nitrile rubber (0.4 mm coating thickness); butyl rubber (0.7 mm coating thickness). Gloves selected should have a breakthrough rating of at least >30 minutes.

Other Protective Equipment: The type and degree of personal protective equipment appropriate will depend on the specific work operation. Eye wash stations and emergency showers should be available. Inspect and replace personal protective equipment at regular intervals; use professional care in their selection, use and care

8.3 Environmental exposure controls

Observe all precautions to prevent contamination of soil and waterways.

Section 9 - Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

9.1.1 General information:

Appearance: Powder
Color: White to off-white
Type of Odor: Slight
Odor Threshold: No data available

9.1.2 Important health, safety and environmental information:

Initial Boiling Point: No data available
Melting Point: 175-181°C (347-358°F)
Flammability Classification: Combustible III B
Flash Point: >200°C (>392°F)
Autoignition Temperature: No data available
Decomposition Temperature: >200°C (>392°F)
Flammability Limits (lower/upper): No data available
Vapor Pressure: 0.000000026 mm Hg @ 20°C
Vapor Density (Air=1): 8.3
Evaporation Rate (BuAc=1): No data available
Octanol/Water Partition Coefficient (log_{Pow}): 0.97
Specific Gravity: 1.3

Bulk Density:	10.83 lbs/gal
Water Solubility:	Insoluble
pH:	6.0-6.9 (50 g/l @ 25°C)
Viscosity:	Not applicable
Explosive Properties:	Not determined
Oxidizing Properties:	Not determined
Molecular Formula:	C ₁₂ H ₁₂ N ₂ O ₂ S
Molecular Weight:	248.31

Section 10 - Stability and Reactivity

10.1 Stability and Reactivity

10.1 Reactivity

No dangerous reaction is known under normal use and storage conditions.

10.2 Stability

Stable under normal use and storage conditions.

10.3 Possibility of hazardous reactions

Dusts may form explosive dust-air mixtures; uncontrolled curing may lead to exotherm and decomposition.

10.4 Conditions to avoid

Avoid extreme heat; avoid dust formation. Keep away from ignition sources; protect against electrostatic discharges.

10.5 Incompatible materials

Strong acids, strong oxidizing agents, strong reducing agents, amines.

10.6 Hazardous decomposition products

Thermal decomposition will generate carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Acute Oral Toxicity: LD50(rat): 1000 mg/kg

Acute Dermal Toxicity: LD50(rabbit): >4000 mg/kg

Acute Inhalation Toxicity: No data available

Skin Corrosion/Irritation: No irritation effects reported

Serious Eye Damage/Irritation: No irritation effects reported

Skin Sensitization (guinea pig): No sensitizing effects reported.

Mutagenicity: No mutagenic effects reported.

Carcinogenicity: 4,4-DDS has been classified by IARC as Group 3 (not classifiable as to its carcinogenicity to humans). Not listed as carcinogen by OSHA, NTP, IARC or ACGIH.

Reproductive Toxicity: No effects reported.

Specific Target Organ Toxicity - single exposure (STOT-se): May cause damage to the blood tissue through oral exposure; can cause hemolytic anemia in glucophosphate-dehydrogenase deficient individuals.

Specific Target Organ Toxicity - repeated exposure (STOT-re): May cause damage to the liver, spleen and blood tissue through prolonged or repeated oral exposure.

Aspiration Hazard: No data available

Potential Health Effects:

Skin Contact: Generally, this product does not irritate the skin.

Eye Contact: May cause mild transient irritation.

Ingestion: Harmful if swallowed; prolonged/repeated exposure may have adverse effects on blood, liver, spleen.

Inhalation: Exposure to vapors from heated product may cause irritation or sensitization of the nose and throat.

Chronic Health Effects: Prolonged/repeated oral exposure may have target organ effects. No data available

Additional Information:

RTECS No. BY8925000

In a long-term feeding study male rats receiving high doses developed stromal tumors of the abdominal organs, while female rats and male and female mice did not show these effects; studied of humans treated with this substance for therapeutic use did not exhibit any significant increase in the risk of cancer; it was concluded that exposure to this substance does not pose a chronic health hazard to humans under controlled conditions of good industrial practice.

Target organs: blood (can cause hemolytic anemia in glucophosphate-dehydrogenase deficient individuals); liver.

Section 12 - Ecological Information

12.1 Toxicity

12.1.1 Acute/prolonged toxicity to fish

LC50 1-10 mg/l (anticipated based on similar product)

12.1.2 Acute/prolonged toxicity to aquatic invertebrates

No data available

12.1.3 Acute/prolonged toxicity to aquatic plants

No data available

12.1.4 Toxicity to bacteria, to soil dwelling organisms and to terrestrial plants

No data available

12.1.5 Chronic toxicity to aquatic organisms

No data available

12.1.6 General effect

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Not readily biodegradable

12.3 Bioaccumulative potential

BCF <5 (moderate potential to bioaccumulate)

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment (EC reg. 453/2010)

Product not classified as Persistent, Bioaccumulative and Toxic. Product not classified as very Persistent or very Bioaccumulative.

12.6 German WGK classification

WGK = 1 (self-assessment)

12.7 Other adverse effects

No other adverse effects are identified.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Disposal: Do not dump to ground, sewers or watercourses. Incinerate or otherwise dispose of in compliance with all applicable federal, state and local environmental control laws and regulations. Waste characterization according to RCRA guidelines and compliance with applicable laws are the responsibility solely of the waste generator.

Container Disposal: Containers should be drained of all residual product prior to disposal.

Section 14 - Transport Information

14.1 Shipping description

DOT Proper Shipping Description:

UN3077 Environmentally hazardous substance, solid, n.o.s. (Diaminodiphenylsulfone)

Hazard Class 9 PG III

ERG No. 171

IMDG Proper Shipping Description:

UN3077 Environmentally hazardous substance, solid, n.o.s. (Diaminodiphenylsulfone)

Hazard Class 9 PG III

EmS No.: F-A, S-F

Marine Pollutant: Yes

IATA Proper Shipping Description:

UN3077 Environmentally hazardous substance, solid, n.o.s. (Diaminodiphenylsulfone)

Hazard Class 9 PG III

EmS No.: F-A, S-F

Passenger and Cargo Aircraft Packing Instruction: 956

Cargo Only Aircraft Packing Instruction: 956

Marine Pollutant: Yes

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Title III Section 311/312 (40CFR370): Acute health hazard, chronic health hazard

SARA Title III Section 313 (40CFR372): No reportable components

CERCLA Status (40CFR302): No reportable components (Release of a hazardous substance into the environment in an amount that equals or exceeds its reportable quantity (RQ) requires notification to the National Response Center at 800-424-8802.)

RCRA Status (40CFR261): Not listed

OSHA/NTP/IARC Carcinogen Status: Not listed

TSCA Inventory Status: Reported/included

Canadian DSL Status: Reported/included

Canadian WHMIS Status: D1B

Chemicals Known to the State of California to Cause Cancer or Reproductive Toxicity:

None known to be in the product at levels requiring a warning.

REACH Annex XIV (SVHC)

No listed components

REACH Annex XVII (Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles)

No listed components

REACH Status (EC 1907/2006)

REACH Registration No. 01-2119949572-30-0001

Chemical safety assessment
Not available

Section 16 - Other Information

Safety Data Sheet Preparer:
Product Compliance Department
ACCI Specialty Materials
1600 W Blancke St
Linden, NJ 07036

Date of SDS Revision: March 30, 2015

National chemical inventories

All components of this product are listed on the following chemical substance inventories:

TSCA (USA)
DSL (Canada)
EINECS (Europe)
ENCS (Japan)
ECL (Korea)
AICS (Australia)
PICCS (Philippines)
NZIoC (New Zealand)
IECSC (China)

THE INFORMATION OR RECOMMENDATIONS CONTAINED HEREIN ARE BASED ON STANDARD PRODUCT AND ARE PROPRIETARY AND FURNISHED SOLELY FOR THE USE OF OUR CUSTOMERS. THIS INFORMATION IS PROVIDED IN GOOD FAITH AND BELIEVED TO BE TRUE AND ACCURATE AS OF THE DATE SHOWN BELOW; HOWEVER, SINCE WE HAVE NO CONTROL OVER THE USE CONDITIONS OR PRODUCTION PROCESSES OF PARTIES USING THIS PRODUCT, ROYCE INTERNATIONAL CANNOT ACCEPT RESPONSIBILITY FOR LOSS, INJURY OR OTHER DAMAGES RESULTING FROM THE USE OF THE PRODUCT OR THIS OR ANY OTHER INFORMATION PROVIDED BY US. THEREFORE, NO GUARANTEES OF ANY KIND, EXPRESSED OR IMPLIED, ARE MADE BY ROYCE INTERNATIONAL WITH REGARD TO ANY OF THEIR PRODUCTS. USERS ARE ADVISED TO PERFORM THEIR OWN TESTS AND HAZARD ASSESSMENTS TO DETERMINE THE SAFETY, SUITABILITY AND RELEVANCE OF APPLICABLE LAW TO THE PRODUCT AS IT IS TO BE USED BY THEM.