

Creation Date 30-Apr-2012

Revision Date 21-Jan-2013

Revision Number 3

## SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product Identifier**

**Product Description:** 4-(N-Ethyl-N-2-hydroxyethyl)-2-methylphenylenediamine sulfate  
**Cat No.** 410120000; 410120250  
**Synonyms** Color developing agent, CD-4; 2-[(4-Amino-3-methylphenyl)ethylamino]ethanol sulfate

**Relevant identified uses of the substance or mixture and uses advised against**

**Recommended Use** Laboratory chemicals  
**Uses advised against** No Information available

**Details of the supplier of the safety data sheet**

**Company**

Acros Organics BVBA  
 Janssen Pharmaceuticaaan 3a  
 2440 Geel, Belgium

**E-mail address** begel.sdsdesk@thermofisher.com

**Emergency Telephone Number**

For information in the US, call: 001-800-ACROS-01  
 For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99  
 Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300  
 CHEMTREC Phone Number, Europe: 001-703-527-3887

## SECTION 2. HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

**REGULATION (EC) No 1272/2008**

Acute oral toxicity	Category 3
Skin Sensitization	Category 1
Specific target organ toxicity - (repeated exposure)	Category 2
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

*For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16*

**Symbol(s)** T - Toxic  
 N - Dangerous for the environment

**R-phrases(s)** R25 - Toxic if swallowed  
 R43 - May cause sensitization by skin contact

**Risk Combination Phrases** R48/22 - Harmful: danger of serious damage to health by prolonged exposure if swallowed  
 R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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**SECTION 2. HAZARDS IDENTIFICATION**

Label Elements



**Signal Word**

**Danger**

**Hazard Statements**

H301 - Toxic if swallowed

H317 - May cause an allergic skin reaction

H373 - May cause damage to organs through prolonged or repeated exposure

H410 - Very toxic to aquatic life with long lasting effects

**Precautionary Statements - EU (§28, 1272/2008)**

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician

P280 - Wear eye protection/ face protection

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P273 - Avoid release to the environment

**Other Hazards**

No information available.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
Ethanol, 2-[(4-amino-3-methylphenyl)ethylamino]-, sulfate (1:1) (salt) 25646-77-9	EEC No. 247-162-0	>95	25646-77-9	T; R25 R43 Xn; R48/22 N; R50-53	Acute Tox. 3 (H301) Skin Sens. 1 (H317) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

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**SECTION 4. FIRST AID MEASURES****Description of first aid measures****Eye Contact**

Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**Skin Contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Obtain medical attention.

**Ingestion**

Never give anything by mouth to an unconscious person. Drink plenty of water. Call a physician immediately. If possible drink milk afterwards.

**Inhalation**

Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediate medical attention is required.

**Notes to Physician**

Treat symptomatically

**SECTION 5. FIRE-FIGHTING MEASURES****Extinguishing media****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Extinguishing media which must not be used for safety reasons**

No information available.

**Special hazards arising from the substance or mixture**

Thermal decomposition can lead to release of irritating gases and vapors

**Advice for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

**Environmental precautions**

Prevent further leakage or spillage if safe to do so

**Methods and material for containment and cleaning up**

Sweep up or vacuum up spillage and collect in suitable container for disposal.

**SECTION 7. HANDLING AND STORAGE**

**Precautions for Safe Handling**

Avoid contact with skin and eyes. Avoid contact with clothing. Remove and wash contaminated clothing before re-use. Avoid breathing vapors or mists. Do not ingest. Wash thoroughly after handling.

**Conditions for safe storage, including any incompatibilities**

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

**Specific End Uses**

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Biological limit values** This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

**Exposure controls**

<b>Engineering Measures</b>	Ventilation systems
<b>Personal protective equipment</b>	
<b>Eye Protection</b>	Goggles
<b>Hand Protection</b>	Protective gloves
<b>Skin and body protection</b>	Wear appropriate protective gloves and clothing to prevent skin exposure
<b>Respiratory Protection</b>	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice

**Environmental exposure controls** No information available.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Powder, Solid
<b>Appearance</b>	Beige
<b>pH</b>	No information available.
<b>Boiling Point/Range</b>	No information available.
<b>Melting Point/Range</b>	157°C / 314.6°F
<b>Flash Point</b>	No information available.
<b>Autoignition Temperature</b>	No information available.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Molecular Formula C<sub>11</sub> H<sub>18</sub> N<sub>2</sub> O . H<sub>2</sub> S O<sub>4</sub>  
 Molecular Weight 292.35

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity

Chemical Stability

Stable under normal conditions.

Possibility of Hazardous Reactions

Hazardous Polymerization No information available.  
 Hazardous Reactions . No information available.

Conditions to Avoid

Heat, flames and sparks

Incompatible Materials

Oxidizing agents.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Information on Toxicological Effects

Acute Toxicity

**Component Information**

**Component**  
 Ethanol, 2-[(4-amino-3-methylphenyl)ethylamino]-, sulfate (1:1) (salt)

LD50 Oral	LD50 Dermal	LC50 Inhalation (Dust)
35 mg/kg ( Rat )		

Chronic Toxicity

**Carcinogenicity** There are no known carcinogenic chemicals in this product

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<b>Sensitization</b>	May cause sensitization by skin contact
<b>Mutagenic Effects</b>	No information available
<b>Reproductive Effects</b>	No information available.
<b>Developmental Effects</b>	No information available.
<b>Target Organs</b>	No information available.
<b>Other Adverse Effects</b>	See actual entry in RTECS for complete information
<b>Endocrine Disruptor Information</b>	None known

**SECTION 12. ECOLOGICAL INFORMATION**

<b>Toxicity</b>	
<b>Ecotoxicity effects</b>	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

- Persistence and degradability**  
No information available
- Bioaccumulative potential**  
No information available.
- Mobility in soil**  
No information available.
- Results of PBT and vPvB assessment**
- Other adverse effects**  
No information available

**SECTION 13. DISPOSAL CONSIDERATIONS**

<b><u>Waste treatment methods</u></b>	
<b>Waste from Residues / Unused Products</b>	Dispose of in accordance with local regulations
<b>Contaminated Packaging</b>	Empty containers should be taken to local recyclers for disposal

**SECTION 14. TRANSPORT INFORMATION**

<b><u>IMDG/IMO</u></b>	
UN-No	2811
Hazard Class	6.1
Packing Group	II
Proper Shipping Name	TOXIC SOLID, ORGANIC, N.O.S.

<b><u>ADR</u></b>	
UN-No	2811

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**SECTION 14. TRANSPORT INFORMATION**

**Hazard Class** 6.1  
**Packing Group** II  
**Proper Shipping Name** TOXIC SOLID, ORGANIC, N.O.S.

**IATA**

**UN-No** 2811  
**Hazard Class** 6.1  
**Packing Group** II  
**Proper Shipping Name** TOXIC SOLID, ORGANIC, N.O.S.\*

**SECTION 15. REGULATORY INFORMATION**
**Safety, health and environmental regulations/legislation specific for the substance or mixture**
**International Inventories**

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Ethanol, 2-[(4-amino-3-methylphenyl)ethylamino]-, sulfate (1:1) (salt)	247-162-0	-		X	X	-	X	X	X	X	X

**Legend**
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**CHINA** - China Inventory of Existing Chemical Substances

**AICS** - Inventory of Chemical Substances

**KECL** - Existing and Evaluated Chemical Substances

**Chemical Safety Assessment**
**SECTION 16. OTHER INFORMATION**
**Full text of R-phrases referred to under sections 2 and 3**

R25 - Toxic if swallowed

R43 - May cause sensitization by skin contact

R48/22 - Harmful: danger of serious damage to health by prolonged exposure if swallowed

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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**SECTION 16. OTHER INFORMATION**

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Revision Summary

Reason for revision (M)SDS sections updated, 12.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet