

Creation Date 02-Oct-2009

Revision Date 03-May-2012

Revision Number 2

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

Product Identifier

Product Description: Hexadecyltrimethylammonium bromide
Cat No. 227160000; 227160025; 227160100; 227160101; 227160250; 227161000; 227165000
Synonyms Cetyltrimethylammonium bromide; Cetrimonium bromide; CTABr

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 4
Skin Corrosion/irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Specific target organ toxicity - (single exposure)	Category 3
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) Xn - Harmful
 N - Dangerous for the environment

R-phrases(s) R22 - Harmful if swallowed

Risk Combination Phrases R36/37/38 - Irritating to eyes, respiratory system and skin
 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

Warning

Hazard Statements

H319 - Causes serious eye irritation
 H302 - Harmful if swallowed
 H410 - Very toxic to aquatic life with long lasting effects
 H315 - Causes skin irritation
 H335 - May cause respiratory irritation

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

P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
 P273 - Avoid release to the environment
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
 P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

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.
Hexadecyltrimethylammonium bromide 57-09-0	EEC No. 200-311-3	99	57-09-0	Xn; R22 Xi; R36/37/38 N; R50/53	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-

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

SECTION 4. FIRST AID MEASURES

Description of first aid measures

Eye Contact

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

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

Ingestion

Do not induce vomiting. Call a physician or Poison Control Center immediately.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Obtain medical attention.

Notes to Physician

Treat symptomatically

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. Do not get in eyes, on skin, or on clothing.

Environmental precautions

Should not be released into the environment.



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Methods and material for containment and cleaning up

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

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Do not breathe dust. Do not ingest.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture.

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

Engineering Measures Ensure that eyewash stations and safety showers are close to the workstation location Ensure adequate ventilation, especially in confined areas

Personal protective equipment

Eye Protection Safety glasses with side-shields

Hand Protection Protective gloves

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection 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

Physical State Powder, Solid
Appearance White

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

odor	slight
pH	5 - 7@ 20°C (10 g/l aq.sol)
Vapor Pressure	negligible
Vapor Density	No information available.
Boiling Point/Range	No information available.
Melting Point/Range	230°C / 446°F
Decomposition temperature	> 230°C
Flash Point	244°C / 471°F
Autoignition Temperature	290°C / 554°F
Evaporation Rate	negligible
Water Solubility	13 g/L (20°C)
Molecular Formula	C19 H42 Br N
Molecular Weight	364.45

SECTION 10. STABILITY AND REACTIVITY**Reactivity****Chemical Stability**

Hygroscopic.

Possibility of Hazardous Reactions

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

Conditions to Avoid

Avoid dust formation, Incompatible products, Excess heat, Exposure to moisture.

Incompatible Materials

Strong oxidizing agents, Strong bases.

Hazardous Decomposition ProductsNitrogen oxides (NO_x). Carbon monoxide (CO). Carbon dioxide (CO₂). Hydrogen halides.**SECTION 11. TOXICOLOGICAL INFORMATION****Information on Toxicological Effects****Acute Toxicity****Product Information** See actual entry in RTECS for complete information.**Component Information**

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SECTION 11. TOXICOLOGICAL INFORMATION

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation (Dust)
Hexadecyltrimethylammonium bromide	410 mg/kg (Rat)		

Chronic Toxicity
Carcinogenicity

There are no known carcinogenic chemicals in this product

Sensitization

No information available.

Mutagenic Effects

Not mutagenic in AMES Test

Reproductive Effects

Experiments have shown reproductive toxicity effects on laboratory animals

Developmental Effects

Developmental effects have occurred in experimental animals

Teratogenicity

Teratogenic effects have occurred in experimental animals.

Target Organs

Skin Respiratory system Eyes

Other Adverse Effects

The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information

Endocrine Disruptor Information

None known

SECTION 12. ECOLOGICAL INFORMATION
Toxicity
Ecotoxicity effects

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment Do not empty into drains

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Hexadecyltrimethylammonium bromide	0.09 mg/L EC50 = 96 h		= 9.84 mg/L EC50 Photobacterium phosphoreum 5 min	

Persistence and degradability

Readily biodegradable

Bioaccumulative potential

No information available.

Component	log Pow
Hexadecyltrimethylammonium bromide	3.2

Mobility in soil
Results of PBT and vPvB assessment
Other adverse effects

No information available

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SECTION 13. DISPOSAL CONSIDERATIONS
Waste treatment methods

Waste from Residues / Unused Products Dispose of in accordance with local regulations

Contaminated Packaging Empty containers should be taken to local recyclers for disposal

SECTION 14. TRANSPORT INFORMATION
IMDG/IMO

UN-No UN2811
Hazard Class 6.1
Packing Group III
Proper Shipping Name TOXIC SOLID, ORGANIC, N.O.S.

ADR

UN-No UN2811
Hazard Class 6.1
Packing Group III
Proper Shipping Name TOXIC SOLID, ORGANIC, N.O.S.

IATA

UN-No UN2811
Hazard Class 6.1
Packing Group III
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

All of the components in the product are on the following Inventory lists:

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Hexadecyltrimethylammonium bromide	200-311-3	-		X	X	-	X	X	X	X	X

Legend

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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**

R22 - Harmful if swallowed

R36/37/38 - Irritating to eyes, respiratory system and skin

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

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Revision Summary

Reason for revision Not applicable

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