Safety Data Sheet

1: Identification of substance / mixture

1. Product Identifier

Substance

Product Name	**[Tris(hydroxymethyl)aminomethane]**
Product Code	T60040
CAS Number	77-86-1
Other Names	T60040
IUPAC	
MFCD Number	
EC/EINECS	201-064-4
REACH Number	Index-No

2. Relevant identified uses of the substance or mixture and uses advised against

For research and laboratory use only.

3. Details of the supplier of the safety data sheet

Melford Laboratories Ltd
Bildeston Road,Chelsworth
Ipswich
Suffolk
IP77LE
UK

Telephone: 01449 741178
Fax: 01449 741217
Email: support@melford.co.uk

4. Emergency telephone number

+44(0)1449 741178 -

2. Hazards Identification

1. Classification of the substance or mixture

Non Hazardous

2. Label elements

Non Hazardous

Hazard Statements

Non Hazardous

Precautionary Phrases

Non Hazardous

3. Other Hazards

Non Hazardous

3. Composition / Information on Ingredients

1. Substances

Product Name	Hazards	Concentration
[Tris(hydroxymethyl)aminomethane]		
CAS Number: 77-86-1 EC/EINECS: 201-064-4		<=100%

4. First Aid Measures

1. Description of first aid measures

Skin Contact	Wash off with soap and plenty of water.
Eye Contact	Rinse opened eye for several minutes under running water. Ensure adequate flushing by separating the eyelids with fingers
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water.

Inhalation If breathing becomes bubbly, have the casualty sit and provide oxygen if available.

2. Most important symptoms and effects

The most important known symptoms and effects are described in section 11

3. Indication of any immediate medical attention

No additional measures required

5. Firefighting measures

1. Extinguishing Media

Suitable Water spray.
Alcohol resistant foam.
Dry chemical powder.
Carbon dioxide.

Unsuitable None

2. Special Hazards arising from the substance or mixture

In combustion toxic fumes may form.

3. Advice for Fire Fighters

Wear self-contained breathing apparatus.
Wear protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measures

1. Personal Precautions

Refer to section 8 of SDS for personal protection details.

2. Environmental Precautions

Do not discharge into drains or rivers.

3. Methods & Materials

Transfer to a closable, labelled salvage container for disposal by an appropriate method.

4. Preventing the occurrence of secondary hazards.

Clean up all spills immediately. Wear suitable PPE.

7.Handling and Storage

1. Personal Precautions

Safe Handling Ensure there is exhaust ventilation where dusts may form.

Protection against explosions and fires No special requirements

2. Conditions for safe storage, including any incompatibilities

Managing Storage Risks Keep container tightly closed.
Store below 25° C Store at room temperature.

Storage Controls No special requirements

Maintaining Integrity Store away from oxidising agents

Other advice no further information available

3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

8. Exposure Controls/Personal Protection

1. Control Parameters

No Data Available

2. Exposure Controls

General protective and hygiene measures	The standard precautionary measures should be adhered to when handling
Engineering measures	Ensure there is exhaust ventilation where dusts may form.
Eye / Face Protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)
Hand protection	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it
Respiratory protection	Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Skin protection	Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other personal protection advice	no data

9. Physical and Chemical Properties

1. Physical and Chemical Properties

Appearance	White crystalline solid
Odour	No Data Available
Odour threshold	No Data Available
PH	10.5-12
Melting point / Freezing point	167-172°C
Initial boiling point and boiling range	288 °C at 1,013 hPa - Decomposes below the boiling
Flash point	No Data Available
Evaporation rate	No Data Available
Flammability(solid,gas)	No Data Available
Upper/lower flammability or explosive limits	No Data Available
Vapour pressure	No Data Available
Vapour density	No Data Available
Relative density	800g/l
Solubility(ies):	Water: 678 g/l at 20 °C
Partition coefficient: n-octanol/water	log Pow : - 2.31 at 20 °C
Auto-ignition temperature	The substance or mixture is not classified as self
Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	Not explosive
Oxidising properties	The substance or mixture is not classified as oxid

2. Other Information

None

10. Stability and Reactivity

1. Reactivity

no unusual reactivity

2. Stability

Stable under recommended storage conditions.

3. Possibility of Hazardous Reactions

no hazardous reactions known

4.Conditions to Avoid

Moist Air- hygroscopic.

5. Incompatible Materials

Strong oxidizing agents.

6. Hazardous Decomposition Products

In combustion emits toxic fumes of carbon dioxide / carbon monoxide.
In combustion emits toxic fumes of nitrogen oxides.

11. Toxicology information

1. Information

Acute Toxicity	LD50 Oral-rat-> 3,000 mg/kg LD50 Dermal-rat-> 5,000 mg/kg (OECD Test Guideline 402)
Skin corrosion/irritation	Skin-rabbit Result: No skin irritation (OECD Test Guideline 404)
Serious eye Damage/irritation	Eyes-rabbit Result: No eye irritation (OECD Test Guideline 405)
Respiratory or skin sensitisation	Buehler Test-guinea pig Does not cause skin sensitisation. (OECD Test Guideline 406)
Germ Cell mutagenicity	Result: Not mutagenic in Ames Test. in vitro assay Result:negative In vitro tests did not show mutagenic effects Result:In vivo tests did not show any chromosomal changes
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity	No information available
STOT-single exposure	No information available
STOT-repeated exposure	No information available
Aspiration hazard	No information available

2. Additional

Repeated dose toxicity-rat-Oral-No observed adverse effect level-1,000 mg/kg
RTECS: Not available
To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

12. Ecological Information

1. Toxicity

Toxicity to daphnia and other aquatic invertebrates
EC50-Daphnia-> 980 mg/l-48 h

Toxicity to algae
EC50-Algae-397 mg/l-72 h
NOEC-Algae-100 mg/l-72 h

2. Persistence and degradability

Result: -Readily biodegradable.
(OECD Test Guideline 301F)

3. Bio-Accumulative Potential

No bioaccumulation is to be expected (log Pow <= 4).

4. Mobility and Soil

No information available

5. Results of PBT & vPvB assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)

6. Other adverse effects

No information available

13. Disposal Considerations

1. Waste Treatment Methods

Disposal Operations Consult state, local or national regulations for proper disposal.

Disposal of Packaging Disposal must be made according to official regulations.

14. Transport Information

Air (ICAO)

Not classified as hazardous for transport

Road (ADR)

Not classified as hazardous for transport

Sea (IMDG)

Not classified as hazardous for transport

15. Safety, health, environmental and national regulations

1. Safety, health, environmental and national regulations:

product is not subject to any additional regulations or provisions

2. Safety Assessment

No Chemical Safety Assessment

16. Other Information

1. Other Information:

ADR: Accord Europeen sur le transport des merchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)
RID:Reglement International concernant le transport des merchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association
ICAO:International Civil Aviation Organization
ICAO-TI: Technical Instructions by the ICAO
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS:Chemical Abstracts Service

3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.
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