

## 1: Identification of substance / mixture

### 1. Product Identifier

Substance

Product Name **HEPES Free Acid**  
Product Code H75030  
CAS Number 7365-45-9  
Other Names [N-(2-hydroxyethyl)piperazine-N'-(2-ethanesulphonic acid)]

IUPAC

MFCD Number

EC/EINECS

REACH Number

Index-No

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

Research and Laboratory Use

### 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

H335 STOT SE 3

### 2. Label elements

Signal Word **Warning**



### Hazard Statements

H335 May cause respiratory irritation.

### Precautionary Phrases

P233 Keep container tightly closed.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

### 3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

## 3. Composition / Information on Ingredients

### 1. Substances

Product Name	Hazards	Concentration
HEPES Free Acid		
CAS Number: 7365-45-9	H335 STOT SE 3	<=100%

## 4. First Aid Measures

### 1. Description of first aid measures

*Skin Contact* Wash immediately with plenty of soap and water.  
Consult a doctor.

<i>Eye Contact</i>	Bathe the eye with running water for 15 minutes. Consult a doctor.
<i>Ingestion</i>	Wash out mouth with water. Consult a doctor.
<i>Inhalation</i>	P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Supply fresh air; consult a doctor in case of complaints. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Treat symptomatically.

## 2. Most important symptoms and effects

The most important known symptoms and effects are described in the labelling and/or in section 11

## 3. Indication of any immediate medical attention

No data available

## 5. Firefighting measures

### 1. Extinguishing Media

*Suitable* Water spray.  
Carbon dioxide.  
Alcohol or polymer foam.  
Dry chemical powder.

*Unsuitable* n/a

### 2. Special Hazards arising from the substance or mixture

In combustion toxic fumes may form:  
Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides

### 3. Advice for Fire Fighters

Wear self-contained breathing apparatus.

## 6. Accidental Release Measures

### 1. Personal Precautions

Refer to section 8 of SDS for personal protection details.  
Avoid dust formation. Avoid breathing vapours, mist or gas.

### 2. Environmental Precautions

Do not discharge into drains or rivers.

### 3. Methods & Materials

Sweep up and shovel.  
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* Provide appropriate exhaust ventilation at places where dust is formed  
*Protection against explosions and fires* Normal measures for preventive fire protection.

## 2. Conditions for safe storage, including any incompatibilities

<i>Managing Storage Risks</i>	Keep container tightly closed.
<i>Storage Controls</i>	No special requirements
<i>Maintaining Integrity</i>	P233: Keep container tightly closed. No special requirements
<i>Other advice</i>	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

<i>General protective and hygiene measures</i>	The standard precautionary measures should be adhered to when handling
<i>Engineering measures</i>	Provide appropriate exhaust ventilation at places where dust is formed
<i>Eye / Face Protection</i>	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)
<i>Hand protection</i>	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
<i>Respiratory protection</i>	P260: Do not breathe dust/fume/gas/mist/vapours/spray. 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).
<i>Skin protection</i>	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.
<i>Other personal protection advice</i>	no data available

## 9. Physical and Chemical Properties

### 1. Physical and Chemical Properties

Appearance	White powder
Odour	No Data Available
Odour threshold	No Data Available
PH	No Data Available
Melting point / Freezing point	234°C
Initial boiling point and boiling range	No Data Available
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	No Data Available

Solubility(ies):	No Data Available
Partition coefficient: n-octanol/water	No Data Available
Auto-ignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	No Data Available
Oxidising properties	No Data Available

## 2. Other Information

No additional information available

## 10. Stability and Reactivity

### 1. Reactivity

No data available

### 2. Stability

Stable under recommended storage conditions

### 3. Possibility of Hazardous Reactions

No data available

### 4. Conditions to Avoid

No data available

### 5. Incompatible Materials

Strong oxidizing agents.

### 6. Hazardous Decomposition Products

In combustion toxic fumes may form:  
Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides

## 11. Toxicology information

### 1. Information

<i>Acute Toxicity</i>	No Data available
<i>Skin corrosion/irritation</i>	No Data available
<i>Serious eye Damage/irritation</i>	No Data available
<i>Respiratory or skin sensitisation</i>	No Data available
<i>Germ Cell mutagenicity</i>	No Data available
<i>Carcinogenicity</i>	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.
<i>Reproductive toxicity</i>	No Data available
<i>STOT-single exposure</i>	No Data available
<i>STOT-repeated exposure</i>	No Data available
<i>Aspiration hazard</i>	No Data available

### 2. Additional

No Data available

## 12. Ecological Information

### 1. Toxicity

Toxicity to fish  
LC50-Brachydanio rerio (zebrafish)-> 100 mg/l-96 h  
(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates  
EC50-Daphnia magna (Water flea)-> 100 mg/l-48 h

Toxicity to algae  
static test EC50-Pseudokirchneriella subcapitata (green algae)-> 100mg/l  
-72 h  
(OECD Test Guideline 201)  
NOEC-Pseudokirchneriella subcapitata (green algae)-100 mg/l-72 h  
(OECD Test Guideline 201)

Toxicity to bacteria  
EC50-Sludge Treatment-> 1,000 mg/l-3 h  
(OECD Test Guideline 209)

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## 2. Persistence and degradability

Biodegradability  
Result:-According to the results of tests of biodegradability this product  
is not readily biodegradable.  
(OECD Test Guideline 301D)

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## 3. Bio-Accumulative Potential

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

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## 4. Mobility and Soil

No data available

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## 5. Results of PBT & vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

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## 6. Other adverse effects

No data available

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## 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.

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## 14. Transport Information

### Air (ICAO)

Not classified as hazardous for transport

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### Road (ADR)

Not classified as hazardous for transport

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### 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

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### 2. Safety Assessment

No Chemical Safety Assessment

## 16. Other Information

### 1. Other Information:

ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)

RID:Reglement International concernant le transport des marchandises 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

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### 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.