

**SECTION 1:  
IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND OF THE COMPANY/ UNDERTAKING**1.1 PRODUCT IDENTIFIER

Product Name: EC6 Protect – Biocide

Product Code: 5060175589613

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Identified uses

Slow release, long-life and non-oxidising biocide formulated to proactively prevent the growth of bacteria and algae over extended periods in heating and cooling systems.

Uses advised against

This product is not recommended for any industrial, professional or consumer other than the identified uses above. use

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Supplier

ThermoChill UK Ltd

7 Waldrige Road,  
Chester Le Street,  
Co. Durham,  
DH2 3AB

+44 (0) 7595 223563  
paul@xspc.biz

**SECTION 2: HAZARDS IDENTIFICATION****2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE****Classification - Regulation (EC) No. 1272/2008 (CLP)**

Physical and chemical hazards	Not classified as a physical or chemical hazard
Human health	Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1 - H317
Environment	Not classified as an environmental hazard

**2.2 LABEL ELEMENTS****EC No.**

N/A

**Labelling - Regulation (EC) No. 1272/2008 (CLP)****Pictograms****Signal Word**

Danger

**Hazard statements**

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

**Precuactionary statements**

P272 - Contaminated work clothing should not be allowed outside of the workplace

P280 - Wear protective gloves, eye and face protection

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do P363 - Wash contaminated clothing before reuse

**2.3 OTHER HAZARDS**

This product does not meet the PBT/vPvB criteria of REACH, annex XIII.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2 MIXTURES****1. Component - 1,2-Benzisothiazol-3(2H)-one**

Concentration	~ 2.00%
EC No.	220-120-9
CAS No.	2634-33-5
Reach registration No.	N/A

**Classification - Regulation (EC) No. 1272/2008 (CLP)**

Acute Tox. 4 - H302  
Skin Irrit. 2 - H315  
Skin Sens. 1 - H317  
Eye Dam. 1 - H318  
Aquatic Acute 1 - H400

**2. Component - sodium hydroxide**

Concentration	<1%
EC No.	215-186-5
CAS No.	1310-73-2
Reach registration No.	01-2119457892-27

**Classification - Regulation (EC) No. 1272/2008 (CLP)**

Met. Corr. 1 - H290  
Skin Corr. 1A – H314

**SECTION 4: FIRST AID PROCEDURES****4.1 DESCRIPTION OF FIRST AID PROCEDURES**

General Information	When safe to do so remove the victim from the source of exposure giving consideration as to whether this may cause further discomfort to the victim.
Inhalation	Move the affected person to fresh air at once. Keep warm in a position comfortable for breathing. If breathing becomes difficult, properly trained personnel may assist the victim by supplying oxygen to ease breathing.
Ingestion	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
Skin Contact	Promptly remove contaminated clothing and wash skin with soap and water. Continue to wash skin/shower for at least 15 minutes. Get medical attention if any discomfort continues.
Eye Contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.



#### 4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

General Information	The following symptoms are listed in case of exposure to the 100% neat product.
Inhalation	Inhalation of vapours may result in irritation of the throat, mouth and nose.
Ingestion	May cause discomfort to the stomach if swallowed.
Skin Contact	Direct contact is expected to cause reddening and irritation of the skin.
Eye Contact	Direct contact to the eyes is expected to cause soreness and reddening.

#### 4.3 INDICATION OF IMMEDIATE MEDICAL NEEDS OR SPECIAL TREATMENT

No specific recommendations given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical.

If in doubt, get medical attention promptly and present a copy of this Safety Data Sheet.

##### **Notes for the doctor**

No specific recommendations. Treat symptomatically.

### **SECTION 5: FIREFIGHTING MEASURES**

#### 5.1 EXTINGUISHING MEDIA

Extinguish with alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>), dry chemicals, sand and dolomite or water fog.

#### 5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Specific Hazards	When heated and in the case of a fire, harmful/irritant vapours/gases such as oxides of carbon, sulphur and nitrogen may be formed.
Unusual fire and explosion hazards	No known unusual fire/explosion hazards.

#### 5.3 ADVICE FOR FIREFIGHTING

Protective actions during firefighting	Move containers away from fire area if this can be done without risk. Keep people away, isolate the fire and deny unnecessary entry. Use water fog to keep fire-exposed containers cool and disperse vapours. Runoff water should be prevented from entering sewers and watercourses.
Specialist protective equipment for protective firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and full clothing.

## **SECTION 6: PROCEDURE FOR UNWANTED EMISSIONS**

### **6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

#### **Personal precautions**

Avoid flames, sparks, heat and smoking.

In the case of inadequate ventilation, use respiratory protection.

#### **Protective Equipment**

Wear protective clothing as described in Section 8 of this Safety Data Sheet.

#### **Emergency Procedures**

Stop leak/release if possible to do so without risk.

Extinguish all ignition sources if safe to do so.

Warn everybody of potential danger and evacuate if necessary.

### **6.2 ENVIRONMENTAL PRECAUTIONS**

Do not discharge into drains, water courses or onto the ground.

Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

### **6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP**

Absorb spillage with inert, damp, non-combustible material, then flush the contaminated area with water.

Containers with collected spillage should be appropriately labelled with the correct contents and hazard labels.

Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

### **6.4 REFERENCE TO OTHER SECTIONS**

Wear protective clothing as described in Section 8 of this Safety Data Sheet. Collect and dispose of spillage as indicated in Section 13.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1 PRECAUTIONS FOR SAFE HANDLING**

Avoid spilling and contact with the skin and the eyes as well as direct inhalation of sprays and mists.

Wear suitable eye protection.

Provide good ventilation.

Do not eat, drink or smoke in work areas and wash hands after handling this product.

### **7.2 CONDITIONS FOR SAFE STORAGE INCLUDING ANY COMPATIBILITIES**

Store in tightly-closed, original containers in a cool, well-ventilated space.

Keep separate from food, feedstuffs, fertilisers and other sensitive material.

Do not store near heat sources or expose to high temperatures.

Store in a demarcated bunded area to prevent release into drains and/or watercourses.

### **7.3 SPECIFIC END USE(ES)**

The identified uses for this product are detailed in Section 1.2.

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

**8.1 CONTROL PARAMETERS**

Name	STD	TWA-8 Hrs	STEL-15 Min
1,2-Benzisothiazol-3(2H)-one DNEL	WEL	Not available	Not available

No DNEL data available

**PNEC**

No PNEC data available

Name	STD	TWA-8 Hrs	STEL-15 Min
Sodium hydroxide DNEL	WEL	Not available	2 mg/m <sup>3</sup>

Industry, Inhalation - Long term local effects: 1.0 mg/m<sup>3</sup>

Industry, Dermal - Short term local effects: 2%

**PNEC**

No PNEC data available.

**8.2 EXPOSURE CONTROLS**



**Technical procedures**

Engineering measures	Methods to prevent or control exposure are preferred. Provide adequate ventilation to minimise the risk of inhalation of sprays and mists.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practices. Wash hands after handling this product and at the end of each work shift. Routinely wash work clothing and personal protective equipment to remove possible contaminants.
Respiratory equipment	If ventilation is inadequate, suitable respiratory protection must be worn.
Hand protection	PVC/butyl rubber/neoprene gloves are recommended.
Eye protection	Wear approved chemical goggles or face shield.
Skin Protection	Wear rubber apron or protective clothing in case of contact.
Other Protection	Wear suitable protective clothing/footwear as protection against splashing or contamination.
Thermal Hazards	No specific measures required.
Environmental Exposure Controls	Product not classified as an environmental hazard - no specific environmental exposure controls required.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	Clear liquid
Colour	Pink
Odour	Characteristic to EC6 Protect Biocide
Odour Threshold	Not applicable
pH	8-9
Melting point / Pour point	<0°C
Initial boiling point	>100°C
Flash point	>110°C
Evaporation Rate	No test data available
Flammability	Product not classified as flammable
Flammability / explosion limits	No test data available
Vapour pressure	No test data available
Vapour density (air = 1)	No test data available
Relative density of the mixture	1.2
Solubility	Soluble in water
Partition coefficient: n-octanol / water	No test data available
Auto-ignition temperature	>200°C
Decomposition temperature	No test data available
Viscosity	See product data sheet
Explosive properties	Not applicable - product is not classified as an explosive
Oxidising properties	Not applicable - product is not classified as an oxidising agent

**9.2 OTHER INFORMATION**

Not determined.

## **SECTION 10: STABILITY AND REACTIVITY**

### **10.1 REACTIVITY**

See Section 10.3 'Possibility of hazardous reactions'.

### **10.2 CHEMICAL STABILITY**

Stable at normal ambient temperatures and when used as recommended.

### **10.3 POSSIBILITY OF HAZARDOUS REACTIONS**

Neat product may react with oxidising and reducing agents.

### **10.4 CONDITIONS TO AVOID**

Avoid extreme temperatures for prolonged periods of time.

### **10.5 INCOMPATIBLE MATERIALS**

Strong oxidising and reducing agents.

### **10.6 HAZARDOUS DECOMPOSITION PRODUCTS**

No known hazardous decomposition products. Potentially hazardous products released due to fire are listed in Section 5.2 of this Safety Data Sheet.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

### **11.1 INFORMATION ON TOXICOLOGICAL EFFECTS**

#### **Acute toxicity**

No toxicity data available. The not acutely toxic classification was determined via calculation.

Skin corrosion/ irritation	Causes skin irritation.
Serious eye damage/ irritation	Causes serious eye irritation.
Respiratory/ skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Product is not expected to be mutagenic.
Carcinogenicity	Product is not expected to be carcinogenic.
Reproductive toxicity	Product is not expected to damage the reproductive system or harm a developing fetus.
Evaluation of CMR properties	No test data available.
STOT-single exposure	No test data available.
STOT-repeated exposure	No test data available.
Aspiration hazard	No test data available.

#### **General information**

See Section 4.2 of this Safety Data Sheet.

Inhalation	Inhalation of vapours may result in irritation of the throat, mouth and nose.
Ingestion	May cause discomfort to the stomach if swallowed.
Skin contact	Direct contact is expected to cause reddening and irritation of the skin.
Eye contact	Direct contact to the eyes is expected to cause soreness and reddening.





## **SECTION 12: ECOLOGICAL INFORMATION**

### **Ecotoxicity**

This product is not classified as hazardous to the environment.

### **12.1 TOXICITY**

LC50, 96 hours, fish: 11.0 mg/L (value calculated)

EC50, 48 hours, daphnia magna: 15.0 mg/L (value calculated)

### **12.2 PERSISTENCE AND DEGRADABILITY**

This product is expected to be readily biodegradable.

### **12.3 BIOACCUMULATIVE POTENTIAL**

Not expected to bioaccumulate.

Partition coefficient - not determined.

### **12.4 MOBILITY IN SOIL**

Product is water soluble so is expected to be mobile in soils

### **12.5 RESULTS OF PBT AND VPVB ASSESSMENT**

This product does not meet the PBT/vPvB criteria of REACH, annex XIII.

### **12.6 OTHER ADVERSE EFFECTS**

Not determined.

## **SECTION 13: ADVICE ON DISPOSAL**

### **General information**

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with Local Waste Disposal Authority.

### **Disposal methods**

Dispose of waste and residues in accordance with local authority and/or local sewage treatment plant requirements.

**SECTION 14: TRANSPORT INFORMATION****14.1 UN NUMBER**

Product not hazardous for transport - no information required.

**14.2 UN PROPER SHIPPING NAME**

Product not hazardous for transport - no information required.

**14.3 TRANSPORT HAZARD CLASS(ES)**

Product not hazardous for transport - no information required.

**Transport labels**

Product not hazardous for transport - no information required.

**14.4 PACKING GROUP**

Product not hazardous for transport - no information required.

**14.5 ENVIRONMENTAL HAZARDS**

Product not classed as an environmentally hazardous substance or marine pollutant.

**14.6 SPECIAL PRECAUTIONS FOR USER**

Product not hazardous for transport - no information required.

**14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL73/78 AND THE IBC CODE**

Product not hazardous for transport - no information required.

**SECTION 15: REGULATORY INFORMATION****15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS / LEGISLATION FOR THE SUBSTANCE OR MIXTURE EU LEGISLATION**

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

**Guidance notes**

CHIP for everyone HSG228. Approved Classification and Labelling Guide (Sixth edition) L131. Safety Data Sheets for substances and preparations.

**15.2 CHEMICAL SAFETY ASSESSMENT**

No chemical safety assessment for this mixture has been carried out.

**SECTION 16: OTHER INFORMATION**

Issued by ThermoChill UK Ltd  
Revision Date 22/05/2019

**Hazard statements in full**

The following hazard statements are the hazard statements 'in full' for the components of this mixture and do not represent the final classifications of this product.

H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H318 - Cause serious eye damage  
H400 - Very toxic to aquatic life  
H314 - Causes severe burns and eye damage

**Further classification and composition comments**

No further classification or composition comments required.

**(i) Indication of changes**

Safety Data Sheet updated to comply with the new requirements as set out in Regulation (EC) No. 1272/2008 (CLP).

**(ii) Abbreviations and acronyms**

bw: bodyweight  
CAS No: Chemical Abstracts Service number  
CLP: Classification Labelling and Packaging Regulation  
DNEL: Derived No-Effect Level  
EC: European Commission  
EC No: European Chemical number: EINECS, ELINCS or NLP  
ECHA: European Chemicals Agency  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
LC50: Lethal Concentration, 50%  
LD50: Median Lethal Dose  
PBT: Persistent, Bioaccumulative & Toxic  
PNEC: Predicted No Effect Concentration  
REACH: Registration, Evaluation, Authorisation & restrictions of Chemicals  
SDS: Safety Data Sheet  
vPvB: Very Persistent and Very Bioaccumulative  
WEL: Workplace Exposure Limit

**(iii) Training advice**

Product should only be handled by trained operators.

**(iv) Additional information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give advice about the safe handling of the product named in this Safety Data Sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with products or in the case of processing, the information on this Safety Data Sheet is not necessarily valid for the new made-up material.