Date	21/03/2018	Author(s)	Thermal Exchange	Page	1/11	Version	1_	
------	------------	-----------	------------------	------	------	---------	----	--

## Section 1: Identification of the substance/ mixture and of the company/ undertaking

Product identifier	Product identifier				
Product Name	CoolFlow B Inhibitor and Biocide				
Relevant identified uses of the substa	Relevant identified uses of the substance or mixture and uses advised against				
Identified uses	Combined corrosion inhibitor and biocide				
Uses advised against	This product is not recommended for any industrial, professional or consumer use other than the identified uses above.				
Details of the supplier of the Safety I	Data Sheet				
Supplier	Applied Thermal Control Limited 39 Hayhill Industrial Estate, Barrow upon Soar, Leicestershire, LE12 8LD. United Kingdom. www.app-therm.com				
Telephone Number	+44(0)1530 839998				

### **Section 2: Hazards identification**

Classification of the substance or m	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 Sens. 1A H317 Environment Not classified as an environmental hazard			
Label elements				
EC No.	N/A			
Labelling - Regulation (EC) No. 1272/2008 (CLP)				
Signal Word	Danger			





Date	21/03/2018	Author(s)	Thermal Exchange	Page	2/11	Version	1_	
------	------------	-----------	------------------	------	------	---------	----	--

### Section 2 Continued: Hazards identification

Hazard statements H317 - May cause an allergic skin reaction	
Precuationary statements	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.
Other hazards	Other hazards have not been identified for this product Page.

## Section 3: Composition/information on ingredients

Mixtures	
Component - Methyl-1H- benzotriazole	Concentration - 3% EC No 249-596-6 CAS No 29385-43-1 Reach registration No N/A
Classification - Regulation (EC) No. 1272/2008 (CLP)	Acute Tox. 4 - H302 Aquatic Chronic 2 - H411
Component - 5-chloro-2-methyl-4- iso-thiazolin-3-one & 2-methyl-2H- isothiazol-3-one (3:1)	Concentration - 0.1% EC No - 611-341-5 CAS No - 55965-84-9 Reach registration No - N/A
Classification - Regulation (EC) No. 1272/2008 (CLP)	Skin Sens. 1A - H317





Date	21/03/2018	Author(s)	Thermal Exchange	Page	3/11	Version	<u> </u>
------	------------	-----------	------------------	------	------	---------	----------

## **Section 4: First aid procedures**

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.  Get medical attention if any discomfort continues.
Ingestion	Move the 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	Remove contaminated clothing immediately and wash skin with soap and water. 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.
Most important symptoms and effect	ts, 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 cause mild irritation of the upper respiratory tract.
Ingestion	May cause discomfort to the stomach if swallowed.
Skin Contact	Prolonged and repeated contact may cause mild irritation of the skin.
Eye Contact	Direct eye contact may cause reddening of the eyes.
Indication of immediate medical nee	eds or special treatment
chemical.	first aid may still be required in case of accidental exposure, inhalation or ingestion of this tly and present a copy of this Safety Data Sheet
Notes for the doctor	No specific recommendations in addition to the suggestions in Sections 4.1 and 4.3. Treat symptomatically.





Date	21/03/2018	Author(s)	Thermal Exchange	Page	4/11	Version	<u> </u>
------	------------	-----------	------------------	------	------	---------	----------

### **Section 5: Firefighting measures**

Extinguishing media	Extinguishing media			
This product is itself not flammable.	This product is itself not flammable. Use suitable fire-extinguishing media for the surrounding fire.			
Special hazards arising from the sub-	Special hazards arising from the substance or mixture			
When heated and in the case of a fire, harmful vapours/gases (such as carbon monoxide and carbon dioxide) may be formed.				
Unusual fire and explosion hazards	Jnusual fire and explosion hazards No unusual fire/explosion hazards known - product not flammable.			
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	Wear positive-pressure self-contained breathing apparatus (SCBA) and full Fire fighters protective clothing.			

### Section 6: Procedure for unwanted emissions

Personal precautions, protective equipment and emergency procedures			
Personal precautions  In the case of inadequate ventilation, use respiratory protection.  Take care with spillages as surfaces may become slippery.			
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.		

#### **Environmental precautions**

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

This product contains a substance that is classified as hazardous to aquatic environment. Whilst this product is not classified as hazardous to

the aquatic environment it is advised that extra care is taken to avoid spillage/runoff that may enter drains, sewers or watercourses.

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

regulatory body.





Date	21/03/2018	Author(s)	Thermal Exchange	Page	5/11	Version	1_
------	------------	-----------	------------------	------	------	---------	----

### Section 6: Procedure for unwanted emissions

#### Methods and materials for containment and clean up

Absorb spillage with inert, damp, non-combustible material, then flush the contaminated area with water. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

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

#### Precautions for safe handling

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

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

#### Conditions for safe storage including any compatibilities

Store in tightly-closed, original containers.

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

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

Keep away from heat, sparks and open flame.

### Specific end use(es)

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

## Section 8: Exposure controls / Personal protection

Control parameters					
Name	STD	TWA-8 Hrs	STEL-15 Min	DNEL	PNEC
Methyl-1H-benzotriazole	WEL	Not available	Not available	No DNEL data available	No PNEC data available
5-chloro-2-methyl-4-iso- thiazolin-3-one & 2-methyl- 2H-isothiazol-3-one (3:1)	WEL	Not available	Not available	No DNEL data available	No PNEC data available





Date	21/03/2018	Author(s)	Thermal Exchange	Page	6/11	Version	1_
------	------------	-----------	------------------	------	------	---------	----

## Section 8 Continued: Exposure controls / Personal protection

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, but contains a substance classified as hazardous to environment. Avoid spillages/runoff entering drains, sewers and watercourses			





Date	21/03/2018	Author(s)	Thermal Exchange	Page	7/11	Version	1_	
------	------------	-----------	------------------	------	------	---------	----	--

## Section 9: Physical and chemical properties

Information on basic physical and chemical properties			
Appearance	Pink liquid		
Odour	Faint		
Odour Threshold	Not applicable		
рН	8.0 - 9.5		
Melting point / Pour point	No test data available		
Initial boiling point	No test data available		
Flash point	Not applicable - product contains no flammable components		
Evaporation Rate	No test data available		
Flammability	Not applicable - product contains no flammable components		
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	1.00 - 1.08		
Solubility	Soluble in water		
Partition coefficient: n-octanol / water	No test data available		
Auto-ignition temperature	Not applicable - product contains no flammable components		
Decompostion 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		
Other information			
Not determined.			





Date	21/03/2018	Author(s)	Thermal Exchange	Page	8/11	Version	1_	
------	------------	-----------	------------------	------	------	---------	----	--

## Section 10: Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product	
Chemical stability	Stable at normal ambient temperatures and when used as recommended.	
Possibility of hazardous reactions	There are no known hazardous reactions associated with this product.	
Conditions to avoid	Avoid excessive heat for prolonged periods of time.	
Incompatible materials	Strong acids, strong alkalis and strong oxidising agents.	
Hazardous decomposition products	Thermal decomposition products include oxides of carbon and nitrogen. Potentially hazardous products released due to fire are listed in Section 5.2 of this Safety Data Sheet.	

## Section 11: Toxicological information

Information on toxicological effects	Information on toxicological effects			
Acute toxicity No toxicity testing has been carried out of	Acute toxicity  No toxicity testing has been carried out on this product. The hazard classification Skin Sens. 1A - H317 was determined via calculation.			
Skin corrosion/ irritation	This product is not classified as corrosive/irritating to the skin			
Serious eye damage/irritation	This product is not classified as damaging/irritating to the eyes			
Respiratory/ skin sensitisation	May cause allergic skin reaction/sensitisation			
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 foetus.			
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.			





Date	21/03/2018	Author(s)	Thermal Exchange	Page	9/11	Version	<u> </u>
------	------------	-----------	------------------	------	------	---------	----------

## Section 11 Continued: Toxicological information

General information	General information			
See Section 4.2 of this Safety Data Sheet.				
Inhalation	Inhalation of vapours may cause mild irritation of the upper respiratory tract.			
Ingestion	Ingestion of this product may cause discomfort to the stomach if swallowed.			
Skin contact	Prolonged and repeated contact may cause mild irritation of the skin.			
Eye contact	Direct eye contact may cause reddening of the eyes.			

### **Section 12: Ecological information**

Ecotoxicity	The product is not classified as hazardous to the environment.
Toxicity	No available toxicity data for this product.
Persistence and degradability	This product is more than 80% biodegradable
Bioaccumulative potential  Will not bio-accumulate.  Partition coefficient - not determined.	
Mobility in soil	Product is mobile in soil as it is water soluble.
Results of PBT and vPvB assessment	This product does not meet the PBT/vPvB criteria of REACH, annex XIII.
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.





Date	21/03/2018	Author(s)	Thermal Exchange	Page	10/11	Version	1_
------	------------	-----------	------------------	------	-------	---------	----

### **Section 14: Transport information**

UN number	Product not hazardous for transport - no information required.		
UN proper shipping name	Product not hazardous for transport - no information required.		
Transport hazard class(es)	Product not hazardous for transport - no information required.		
Transport labels	Product not hazardous for transport - no information required.		
Packing group	Product not hazardous for transport - no information required.		
Environmental hazards	Product not classed as an environmentally hazardous substance or marine pollutant		
Special precautions for user	Product not hazardous for transport - no information required.		
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**

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

### **Section 16: Other information**

Issued by Thermal Exchange Ltd. Revision Date 21/03/2018. Approved by Graham Wade. Revision Comments Review in line with CLP regulation.

#### Hazard statements in full

The following hazard statements are the hazard statements 'in full' for the components of this mixture. They are not the hazard statements associated with the final classification of this product.

- H302 Harmful if swallowed
- H411 Toxic to aquatic life with long-lasting effects
- H317 May cause an allergic skin reaction





Date	21/03/2018	Author(s)	Thermal Exchange	Page	11/11	Version	1	
------	------------	-----------	------------------	------	-------	---------	---	--

### **Section 16: Other information**

#### Further classification and composition comments

No further classification or composition comments required.

#### Indication of changes

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

#### 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, Bioaccumalative & Toxic PNEC: Predicted No Effect Concentration

REACH: Registration, Evaluation, Authorisation & restrictions of Chemicals

SDS: Safety Data Sheet

vPvB: Very Persistent and Very Bioaccumalative

WEL: Workplace Exposure Limit

#### **Training advice**

Product should only be handled by trained operators.

#### 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.



