

# SAFETY DATA SHEET

## PURECHEM BIOCID

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

<b>Product identifier</b>	
<b>Product Name</b>	PURECHEM BIOCID
<b>Relevant identified uses of the substance or mixture and uses advised against</b>	
<b>Identified uses</b>	Fast acting, non-oxidising biocide formulated to rapidly neutralise a broad spectrum of bacteria and algae found in cooling and heating systems.
<b>Uses advised against</b>	This product is not recommended for any industrial, professional or consumer use other than the identified uses above.
<b>Details of the supplier of the Safety Data Sheet</b>	
<b>Supplier</b>	Applied Thermal Control Limited 39 Hayhill Industrial Estate, Barrow upon Soar, Leicestershire, LE12 8LD. United Kingdom. www.app-therm.com
<b>Telephone Number</b>	+44(0)1530 839998

### Section 2: Hazards identification

<b>Classification of the substance or mixture</b>	
<b>Classification - Regulation (EC) No. 1272/2008 (CLP)</b>	<b>Physical and chemical hazards</b> Not classified as a physical or chemical hazard <b>Human health</b> Eye Irrit. 2 - H319, Skin Sens. 1 - H317 <b>Environment</b> Not classified as an environmental hazard
<b>Label elements</b>	
<b>EC No.</b>	N/A
<b>Labelling - Regulation (EC) No. 1272/2008 (CLP)</b>	
<b>Signal Word</b>	Warning

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### Section 2 Continued: Hazards identification

<b>Hazard statements</b>	H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation
<b>Precautionary statements</b>	P264 - Wash hands thoroughly after handling P272 - Contaminated work clothing should not be allowed outside of the workplace P280 - Wear protective gloves, eye and face protection P333+P313 - If skin irritation or rash occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention
<b>Other hazards</b>	This product does not meet the PBT/vPvB criteria of REACH, annex XIII.

### Section 3: Composition/information on ingredients

<b>Mixtures</b>	
<b>Component - THPS</b>	Concentration - <3% EC No. - 259-709-0 CAS No. - 55566-30-8 Reach registration No. - N/A
<b>Classification - Regulation (EC) No. 1272/2008 (CLP)</b>	Acute Tox. 4 - H302 Skin Sens. 1 - H317 Eye Dam. 1 - H318 Aquatic Acute 1 - H400

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### Section 4: First aid procedures

Description of first aid procedures	
<b>General Information</b>	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.
<b>Inhalation</b>	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.
<b>Ingestion</b>	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.
<b>Skin Contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
<b>Eye Contact</b>	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 effects, both acute and delayed	
<b>General Information</b>	The following symptoms are listed in case of exposure to the 100% neat product.
<b>Inhalation</b>	Inhalation of vapours may cause mild irritation of the upper respiratory tract.
<b>Ingestion</b>	May cause discomfort to the stomach if swallowed.
<b>Skin Contact</b>	Contact may cause irritation of the skin. Contact may also cause an allergic skin reaction.
<b>Eye Contact</b>	Direct contact will irritate the eyes. Immediate first aid is strongly advised to prevent prolonged irritation.
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.	
<b>Notes for the doctor</b>	No specific recommendations. Treat symptomatically.

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### Section 5: Firefighting measures

<b>Extinguishing media</b>	
Extinguish with alcohol-resistant foam, carbon dioxide (CO <sub>2</sub> ), dry chemicals, sand and dolomite or water fog.3/11	
<b>Special hazards arising from the substance or mixture</b>	
<b>Specific Hazards</b>	When heated and in the case of a fire, harmful/irritant vapours/gases such as oxides of carbon, sulphur and phosphorous may be formed.
<b>Unusual fire and explosion hazards</b>	No known unusual fire/explosion hazards.
<b>Advice for firefighting</b>	
<b>Protective actions during firefighting</b>	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.
<b>Specialist protective equipment for</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and full Fire fighters protective clothing.

### Section 6: Procedure for unwanted emissions

<b>Personal precautions, protective equipment and emergency procedures</b>	
<b>Personal precautions</b>	Avoid flames, sparks, heat and smoking. Take precautionary measures against static discharge. In the case of inadequate ventilation, use respiratory protection.
<b>Protective Equipment</b>	Wear protective clothing as described in Section 8 of this Safety Data Sheet.
<b>Emergency Procedures</b>	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.
<b>Environmental precautions</b>	
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.	
<b>Methods and materials for containment and clean up</b>	
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.	
<b>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.</b>	

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### Section 7: Handling and storage

<b>Precautions for safe handling</b>
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.
<b>Conditions for safe storage including any compatibilities</b>
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.
<b>Specific end use(s)</b>
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	TEL-15 Min	DNEL	PNEC
THPS	WEL	Not available	Not available	No DNEL data available	No PNEC data available

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### Section 8 Continued: Exposure controls / Personal protection

Exposure controls	
	
Technical procedures	
<b>Engineering Measures</b>	Methods to prevent or control exposure are preferred. Provide adequate ventilation to minimise the risk of inhalation of sprays and mists.
<b>Hygiene Measures</b>	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.
<b>Respiratory Equipment</b>	If ventilation is inadequate, suitable respiratory protection must be worn.
<b>Hand Protection</b>	PVC/butyl rubber/neoprene gloves are recommended.
<b>Eye Protection</b>	Wear approved chemical goggles or face shield.
<b>Skin Protection</b>	Wear rubber apron or protective clothing in case of contact.
<b>Other Protection</b>	Wear suitable protective clothing/footwear as protection against splashing or contamination.
<b>Thermal Hazards</b>	No specific measures required.
<b>Environmental Exposure Controls</b>	Product not classified as an environmental hazard, but contains a substance classified as hazardous to environment.

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### Section 9: Physical and chemical properties

Information on basic physical and chemical properties	
Appearance	Clear liquid
Colour	Pale yellow
Odour	Chlorine/bleach
Odour Threshold	Not applicable
pH	12.5 (1% conc. solution)
Melting point / Pour point	<0°C
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	1.05 - 1.2
Solubility	Soluble in water
Partition coefficient: n-octanol / water	No test data available
Auto-ignition temperature	Not applicable - product contains no flammable components
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
Other information	
Not determined.	

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### Section 10: Stability and reactivity

<b>Reactivity</b>	Avoid contact with acidic material. This will generate heat and irritant/potentially corrosive vapours.
<b>Chemical stability</b>	Stable under normal conditions and during recommended use. Product decomposes over time to produce oxygen.
<b>Possibility of hazardous reactions</b>	Upon contact with acid, chlorine gas may evolve.
<b>Conditions to avoid</b>	Avoid excessive heat for prolonged periods of time.
<b>Incompatible materials</b>	Acidic materials, some metals (e.g. aluminium, zinc, tin, copper and their alloys).
<b>Hazardous decomposition products</b>	Natural decomposition (especially in warm conditions or in direct sunlight) will evolve oxygen gas.

### Section 11: Toxicological information

<b>Information on toxicological effects</b>	
<b>Acute toxicity</b>	No toxicity data available.
<b>Skin corrosion/ irritation</b>	Direct skin contact is expected to cause chemical burns to the skin.
<b>Serious eye damage/ irritation</b>	Risk of serious damage to the eyes. Direct contact may result in permanent eye damage.
<b>Respiratory/ skin sensitisation</b>	Product not classified as a skin/respiratory sensitizer.
<b>Germ cell mutagenicity</b>	Product is not expected to be mutagenic.
<b>Carcinogenicity</b>	Product is not expected to be carcinogenic.
<b>Reproductive toxicity</b>	Product is not expected to damage the reproductive system or harm a developing foetus.
<b>Evaluation of CMR properties</b>	No test data available.
<b>STOT-single exposure</b>	No test data available.
<b>STOT-repeated exposure</b>	No test data available.
<b>Aspiration hazard</b>	No test data available.

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### Section 11 Continued: Toxicological information

<b>General information</b>	
See Section 4.2 of this Safety Data Sheet.	
<b>Inhalation</b>	Inhalation of vapours may cause mild irritation of the upper respiratory tract.
<b>Ingestion</b>	May cause chemical burns to the mouth, oesophagus and stomach.
<b>Skin contact</b>	Direct contact is expected to cause chemical burns to the skin.
<b>Eye contact</b>	Risk of serious damage to the eyes with direct contact. May also result in permanent eye damage.

### Section 12: Ecological information

<b>Ecotoxicity</b>	The product is not classified as hazardous to the environment.
<b>Toxicity</b>	No available toxicity data for this product.
<b>Persistence and degradability</b>	Product is expected to be rapidly biodegradable.
<b>Bioaccumulative potential</b>	Will not bio-accumulate. Partition coefficient - not determined.
<b>Mobility in soil</b>	Product is mobile in soil as it is water soluble.
<b>Results of PBT and vPvB assessment</b>	This product does not meet the PBT/vPvB criteria of REACH, annex XIII.
<b>Other adverse effects</b>	Not determined

### Section 13: Advice on disposal

<b>General information</b>	Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with Local Waste Disposal Authority.
<b>Disposal methods</b>	Dispose of waste and residues in accordance with local authority and/or local sewage treatment plant requirements.

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### Section 14: Transport information

UN NO. (ADR/RID)	1824	UN NO. (IMDG)	1824
UN NO. (ICAO)	1824	UN NO. (ADN)	1824
UN Proper shipping name (ADR/RID)	SODIUM HYDROXIDE SOLUTION	UN Proper shipping name (ICAO)	SODIUM HYDROXIDE SOLUTION
UN Proper shipping name (IMDG)	SODIUM HYDROXIDE SOLUTION	UN Proper shipping name (ADN)	SODIUM HYDROXIDE SOLUTION
ADR/RID class	8	ADR/RID label	8
IMDG class	8	ICAO class/division	8
ADN class	8	Transport labels	
ADR/RID packing group	II	IMDG packing group	II
ADN packing group	II	ICAO packing group	II
Environmental hazards	Product not classed as an environmentally hazardous substance or marine pollutant.		
Special precautions for user	EmS - F-A, S-B		
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable		

### 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.

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### 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 and do not represent the final classifications of this product.

H290 - May be corrosive to metals

H314 - Causes severe burns and eye damage

H400 - Very toxic to aquatic life

H411 - Toxic to aquatic life with long-lasting effects

#### Further classification and composition comments

Product classifications determined from the specific concentration limits given in Annex I to Regulation (EC) No. 1272/2008 (CLP).

#### 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, 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

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### Section 16: Other information

<b>Training advice</b>
Product should only be handled by trained operators.
<b>Additional information</b>
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.