Health & Safety

Maintenance Engineers
Site CoSHH Assessment
Manual

Site Details -	**Various Sites** **Various Site Addresses**
Project No. –	**As per individual job number**

JGR BUILDING SERVICES LTD.

Site CoSHH Assessment Manual - Contents

Hazard Symbol Table and Management Notes

European Symbol	Meaning	European Symbol	Meaning	European Symbol	Meaning	European Symbol	Meaning	European Symbol	Meaning
	Warning / Irritant		Flammable		Harmful to the Environment / Aquatic Toxicity		Explosive		Serious Health Risk Sensitiser, carcinogen, mutagen or teratogen
	Compressed or Liquefied Gas		Oxidiser		Toxic / Danger		Corrosive		

COSHH Assessment Form

Product	Nitrogen (Oxygen Free)	**Product Picture**	**Hazard**
Manufacturer	Energas Ltd, Westmorland Street, Hull HU2 0HX		
Composition	Nitrogen EINECS No. 231-783-9 100%		
Workplace Exposure Limit	None - No known toxicological effects from this product		

How is the Product / Substance Used	Quantity	Time Task takes & Frequency	Persons Exposed
Nitrogen (Oxygen Free) is a compressed gas (100% Nitrogen) which is non-flammable, non-toxic and safe for the environment Used as an inert medium to pressurise service pipework to undertake high pressure testing, also used at low pressure at low discharge rates to bleed through pipework past joints during brazing, to exclude oxygen and there by prevent scale forming Only competent trained engineers, holding C&G 2079 F-gas Certificate, can use Nitrogen (Oxygen Free) on systems containing refrigerant gases.	Cylinder size 19kg	Time taken to carry out pressure / leak testing of systems using this product varies between – 30mis – 2 hours	JGR Engineering Personnel

Working Methods & Controls	Personal Protective Equipment
Only competent trained engineers holding C&G 2079 F-gas Certificate can work on systems containing refrigerant gases. When working with Nitrogen (Oxygen Free), engineers must always carry out works following all control measures and task methodologies detailed in all relevant JGR Method Statements, Task Procedures and Risk Assessments. Inspect cylinder valves for damage prior to use, label & return any damaged cylinders to the supplier Keep cylinder valves clean and free from contaminants particularly oil and water. Ensure all cylinders are secured or in a stable position, using a suitable cylinder trolley or by securing cylinder to a solid structure to protect cylinders from toppling over. Only use properly specified equipment which is suitable for this product, supply pressure & temperature Open valves slowly to prevent shock pressure Only use in a well-ventilated areas As with all High Pressure gases / liquids, avoid risk of High Pressure being directed at skin / eyes	   When handling / working with, this product operatives are to use the following equipment – ▪ Gloves - Protective gloves – BS EN 511 ▪ Safety glasses / goggles - BS EN 166-349B ▪ Safety Footwear – BS EN 345

Accidental Release / Spillage	Fire Fighting
There are no known adverse environmental effects from accidental release Prevent from entering any place where its accumulation could be dangerous, such as confined spaces, as it can asphyxiate in high concentrations. Try to stop release and evacuate area and ensure adequate air ventilation Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe	***Nitrogen is non-flammable, however exposure to fire may cause a rise in pressure causing the cylinder to rupture / explode*** If involved in a fire, if possible stop flow of product & move away from cylinder & cool from a protected position if safe to do so – All known fire extinguishers can be used to cool cylinders, use extinguishing media appropriate to the surrounding conditions Use of self-contained breathing apparatus may be required in confined spaces Advise Fire Brigade / Emergency Services of Pressurised Containers

Exposure Monitoring & Health Surveillance	Disposal
No known adverse environmental effects. Do not smoke while handling product No Health Surveillance required	Do not discharge into any place where its accumulation could be dangerous, such as confined spaces When waste gases are discharged, gas should be flared off **SLOWLY** to atmosphere in a well-ventilated area. Empty cylinders must be returned to the supplier or manufacturer

First Aid	Safe Handling & Storage
Skin – Not considered a potential route of exposure **Eyes –** Not considered a potential route of exposure **Inhalation –** In high concentrations may cause asphyxiation. Symptoms may include loss of mobility / consciousness. Victim may not be aware of asphyxiation. Remove victim to fresh air wearing a self-contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stops. **Ingestion -** Ingestion is not considered a potential route of exposure	**Handling** ▪ Avoid contact with the skin, eyes and clothing. ▪ Provide sufficient air exchange and /or exhaust in work rooms ▪ Do not drag, slide or roll cylinders ▪ Where required use cylinder trolley to transports cylinders and ***never*** attempt to lift cylinder by its valve or cap. **Storage** ▪ Nitrogen should only be stored in manufacturers / suppliers cylinders with valves tightly closed when not in use ▪ Cylinders to be – o Kept upright and stable in a cool, well-ventilated area away from heat sources and safeguard generally against damage o Secured within a secure cage / compound with adequate ventilation and warning notices **Transport** ▪ All vehicles must display the Compressed Gas symbol when transporting compressed gases ▪ COSHH assessment to be held in vehicle ▪ All cylinders ***MUST*** be suitably secured / restrained in the rear of the vehicle to prevent movement during transportation ▪ Vehicle should have a secure solid bulkhead to protect the driver ▪ Vehicle must with a suitable Fire Extinguisher carried on vehicles to combat vehicle fires

Assessment Rating Details

Level of Risk with Control Measures in place –		LOW	X	MEDIUM		HIGH	
Assessor -	Trevor Foster	**Date -**	March 2018		**Review Date -**	March 2020	

COSHH Assessment Form

Product	Class O Armaflex	**Product Picture**	**Hazard**
Manufacturer	Armacell UK Ltd, Mars Street, Oldham, Lancashire, OL9 6LY		No Hazard Identified on Armacell MSDS
Composition	Based on synthetic rubber with additives for fire performance, flexibility and UV stabilisation		
Workplace Exposure Limit	None		

How is the Product / Substance Used	Quantity	Time Task takes & Frequency	Persons Exposed
C lass O Armaflex is the flexible, closed cell, elastomeric, nitrile rubber insulation that offers reliable protection against condensation and effectively prevents energy loss. A highly efficient method of insulating refrigeration & air conditioning pipe work for frost protection, energy conservation and condensation control. Armaflex is dust free, fibre free and CFC free with an ODP of zero which means an environmentally friendly product. Can be used by JGR engineering personnel, however only competent trained engineers, holding C&G 2079 F-gas Certificate, can carry out works on systems containing refrigerant gases. gases	Each section 2m long	This product can be used throughout the duration of the works whilst using other Armaflex products	JGR Engineering Personnel

Working Methods & Controls	Personal Protective Equipment
Can be used by JGR engineering personnel, however only competent trained engineers, holding C&G 2079 F-gas Certificate, can carry out works on systems containing refrigerant gases. gases When working with Class O Armaflex , engineers must always carry out works following all control measures and task methodologies detailed in all relevant JGR Method Statements, Task Procedures and Risk Assessments. In case of fire do not breathe fumes	   When working with Class O Armaflex, operative are to use the following equipment – ▪ Gloves - Protective gloves – BS EN 388, BS EN 511 ▪ Safety glasses / goggles - BS EN 166-349B ▪ Safety Footwear – BS EN ISO 20345 ▪ Overalls / Long sleeved clothing

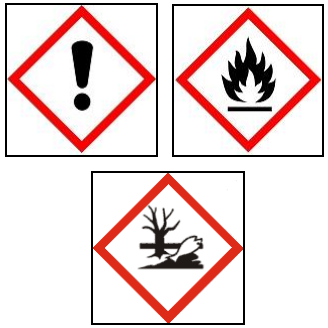
Accidental Release / Spillage	Fire Fighting
Initial Action – Non Hazardous **Clean-up Procedure –** Solid non-hazardous material	**Extinguishing Media –** Water Spray or Dry Powder **Hazards –** Material is stable under normal conditions. In the event of a prolonged fire, as with all organic materials, there will be carbon dioxide / carbon monoxide and water evolved together with small quantities of other gases, dependent upon the heat of the fire

Exposure Monitoring & Health Surveillance	Disposal
None required due to its non-hazardous state No long term exposure hazards identified	Product can be disposed of as normal industrial waste **Ecology Information –** Degrades slowly in the presence of sunlight. Does not evolve gases which will damage the ozone layer, add to global warming, or contribute to ground level ozone pollution

First Aid	Safe Handling & Storage
Skin – Not Harmful **Eyes –** Under normal circumstances any dust created when the material is cut would not be airborne If any dust particles become lodged in the eye, hold eyelids apart and flush eyes with eye wash solution or plenty of clean water for at least 15 minutes and obtain medical assistance, if required **Inhalation -** Under normal circumstances any dust created when the material is cut would not be airborne **Ingestion -** If swallowed, DO NOT induce vomiting. In small quantities there should be no adverse effects. If large quantities have been swallowed, observe patient's condition for up to 48hrs. Seek medical attention in the unlikely event that the patient is not well	**Handling Conditions** ▪ There are no special precautions required **Storage Conditions** ▪ Can be stored in clean, dry rooms under normal conditions with respect to humidity (50 - 70 %) and surrounding temperature (0 °C - 35 °C) **Transport Conditions** ▪ There are no special precautions required

Assessment Rating Details								
Level of Risk with Control Measures in place –			**LOW**	**X**	**MEDIUM**		**HIGH**	
Assessor -	Trevor Foster	**Date -**	March 2018		**Review Date -**		March 2020	

COSHH Assessment Form

Product	Armaflex 520 Adhesive	**Product Picture**	**Hazard**
Manufacturer	Armacell UK Ltd, Mars Street, Oldham, Lancashire, OL9 6LY		
Composition	Contains the following components – **Hydrocarbons C6-C7 isoalkanes –** EC no. 926-605-8 Percentage 30 – 50%		
Workplace Exposure Limit	**Ethyl Acetate –** CAS no. 141-78-6 EC no. 205-500-4 Percentage 10 – 30% **Acetone –** CAS no. 67-64-1 EC no. 200-662-2 Percentage 10 – 30% **Butanone –** CAS no. 78-93-3 EC no. 201-159-0 Percentage 3 – 5% **Propan-2-ol –** CAS no. 67-63-0 EC no. 200-661-7 Percentage 1 – 5% **4-tert-butylphenol –** CAS no. 98-54-4 EC no. 202-679-0 Percentage 0.1 – 1% **Colophony –** CAS no. 8050-09-7 EC no. 232-475-7 Percentage 0.5 – 1%		

How is the Product / Substance Used	Quantity	Time Task takes & Frequency	Persons Exposed
Armaflex 520 Adhesive is used as an adhesive on Class O armaflex is used to insulate copper pipework used in Commercial / Industrial Air Conditioning & Refrigeration Systems. Product can be used by all JGR engineering personnel, however only competent trained engineers, holding C&G 2079 F-gas Certificate, can carry out works on systems containing refrigerant gases.	Container size varies between 0.5ltrs – 1ltr	This product can be used throughout the duration of the works whilst using other Armaflex products	JGR Engineering Personnel

Working Methods & Controls	Personal Protective Equipment
Can be used by JGR engineering personnel, however only competent trained engineers, holding C&G 2079 F-gas Certificate, can carry out works on systems containing refrigerant gases. When working with Armaflex 520 Adhesive, engineers must always carry out works following all control measures and task methodologies detailed in all relevant JGR Method Statements, Task Procedures and Risk Assessments. Ensure adequate ventilation in all work areas, as this product may cause drowsiness or dizziness Shake and stir well before use. Clean all surfaces and the surface of the Armaflex with Armaflex Cleaner Apply thinly to the places to be bonded with a brush or spatula. Where required press together with force during the contact adhesion time. ***Armaflex 520 Adhesive is highly flammable in liquid and vapour form***	 When working with Armaflex 520 Adhesive, operative are to use the following equipment – ▪ Gloves - Protective gloves – BS EN 388, BS EN 511 ▪ Safety glasses / goggles - BS EN 166-349B ▪ Safety Footwear – BS EN ISO 20345 ▪ Overalls / Long sleeved clothing

Accidental Release / Spillage	Fire Fighting
Initial Action – Consider evacuation of the immediate area and ensure the use of PPE for clean up **Clean-up Procedure –** Absorb spill with inert material (e.g. dry sand or earth) then place in a sealed container **Other Actions** – Avoid run off into drains, sewers and watercourses.	***Armaflex 520 Adhesive is highly flammable in liquid and vapour form*** If involved in a fire, if possible stop flow of product & move away from container & cool from a protected position if safe to do so – All known fire extinguishers can be used to cool cylinders, use extinguishing media appropriate to the surrounding conditions – ***Do not use high powered water jet*** In the event of fire carbon dioxide / carbon monoxide gases could be given off Use of self-contained breathing apparatus may be required in confined spaces or any place where its accumulation could be dangerous, such as confined spaces, sewers, basements

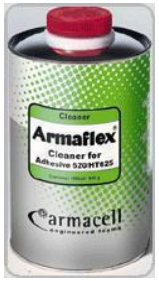
Exposure Monitoring & Health Surveillance	Disposal
Do not smoke while handling this product Do not eat or drink whilst handling this product No Health Surveillance required while using this product	Do not discharge into the drains, surface waters, ground waters, soil or sub soil. **Ecology Information –** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

First Aid	Safe Handling & Storage
Skin – Frequent or prolonged contact may irritate the skin and/or cause dermatitis Take off all contaminated clothing and wash with soap and warm water. If irritation develops and persists obtain medical assistance, if required. **Eyes –** Can cause serious damage if splashed in eyes Hold eyelids apart and flush eyes with eye wash solution or plenty of clean water for at least 15 minutes. Remove contact lenses, if present and easy to do, and obtain medical advice **Inhalation –** Remove from exposure to place with fresh air and lie down. Obtain medical assistance, if required **Ingestion -** If swallowed, ***DO NOT*** induce vomiting and obtain medical assistance.	**Handling** ▪ Keep away from heat and ignition sources, including sparks and ***never*** smoke while handling product ▪ Ensure adequate ventilation in all work areas and avoid breathing in vapours ▪ Repeated exposure may cause skin dryness, cracking ▪ May produce an allergic reaction ▪ Wash hands with soap and warm water before breaks and after working with product. **Storage** ▪ Quantity of Armaflex 520 Adhesive should be kept to a minimum ▪ Product should only be stored in manufacturers / suppliers containers with lid tightly closed when not in use ▪ Kept containers and stable in a cool (below 50°c), well-ventilated area away from heat sources ▪ Segregated and avoid contact with oxidising agents and strong acids, as it can react violently ▪ Do not store with explosive substances or spontaneously combusting substances **Transport** ▪ COSHH assessment to be held in vehicle ▪ All containers ***MUST*** be suitably secured / restrained in the rear of the vehicle to prevent movement during transportation ▪ Vehicle should have a secure solid bulkhead to protect the driver ▪ Vehicle must with a suitable Fire Extinguisher carried on vehicles to combat vehicle fires

Assessment Rating Details

Level of Risk with Control Measures in place –		LOW	X	MEDIUM		HIGH	
Assessor -	Trevor Foster	**Date -**	March 2018		**Review Date -**	March 2020	

COSHH Assessment Form

Product	Armaflex Cleaner	**Product Picture**	**Hazard**
Manufacturer	Armacell UK Ltd, Mars Street, Oldham, Lancashire, OL9 6LY		
Composition	Contains the following components – **Ethyl-acetate** – CAS no - 141-78-6 EC no. 205-500-4 Percentage – 70 - 90% **Butanone** – CAS no – 78-93-3 EC no. 201-159-0 Percentage – 10 - 30% **Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane –** EC no. 926-605-8 Percentage – 5 - 10%		
Workplace Exposure Limit	Exposure limit UK – **Ethyl-acetate** – STEL - 400ml/m³ TWA - 200ml/m³ **Butanone** – STEL - 300ml/m³ TWA - 200ml/m³ **Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane –** STEL - 300ml/m³ TWA - 200ml/m³		

How is the Product / Substance Used	Quantity	Time Task takes & Frequency	Persons Exposed
Armaflex cleaner is used for removal of grease, oils and dirt from surfaces prior to the application of Armaflex adhesives or Armaflex paint. The cleaner can also be used to clean Armaflex adhesive from brushes and tools. Can be used by JGR engineering personnel, however only competent trained engineers, holding C&G 2079 F-gas Certificate, can carry out works on systems containing refrigerant gases.	Container size – 0.5lt - 1ltr	This product can be used throughout the duration of the works whilst using other Armaflex products	JGR Engineering Personnel

Working Methods & Controls	Personal Protective Equipment
Can be used by JGR engineering personnel, however only competent trained engineers, holding C&G 2079 F-gas Certificate, can carry out works on systems containing refrigerant gases. gases When working with Armaflex Cleaner, engineers must always carry out works following all control measures and task methodologies detailed in all relevant JGR Method Statements, Task Procedures and Risk Assessments. Ensure adequate ventilation in all work areas, as this product may cause drowsiness or dizziness Shake and stir well before use. Ensure all surfaces are free from debris and apply thinly to the places to be cleaned with a brush or spatula. ***Armaflex Cleaner is highly flammable***	   When working with Armaflex Cleaner, operative are to use the following equipment – ▪ Gloves - Protective gloves – BS EN 388, BS EN 511 ▪ Safety glasses / goggles - BS EN 166-349B ▪ Safety Footwear – BS EN ISO 20345 ▪ Overalls / Long sleeved clothing

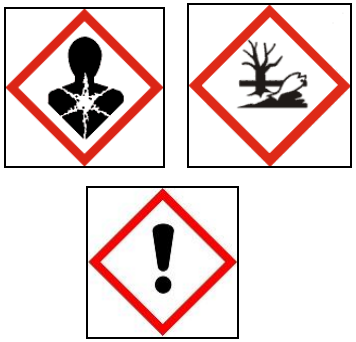
Accidental Release / Spillage	Fire Fighting
Initial Action – Remove all possible sources of ignition. Consider evacuation of the immediate area and ensure the use of PPE for clean up **Clean-up Procedure –** Absorb spill with inert material (e.g. dry sand or earth) then place in a sealed container **Other Actions** – Avoid run off into drains, sewers and watercourses.	***Armaflex Cleaner is highly flammable*** If involved in a fire, if possible stop flow of product & move away from container & cool from a protected position if safe to do so – All known fire extinguishers can be used to cool cylinders, use extinguishing media appropriate to the surrounding conditions – ***Do not use high powered water jet*** In the event of fire carbon dioxide / carbon monoxide gases could be given off Use of self-contained breathing apparatus may be required in confined spaces or any place where its accumulation could be dangerous, such as confined spaces, sewers, basements

Exposure Monitoring & Health Surveillance	Disposal
Do not smoke while handling this product Do not eat or drink whilst handling this product No Health Surveillance required while using this product	Do not discharge into the drains, surface waters, ground waters, soil or sub soil. **Ecology Information –** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

First Aid	Safe Handling & Storage
Skin – May be irritant to sensitive skin, frequent or prolonged contact may irritate the skin & cause dermatitis Remove contaminated clothing. Wash with soap and water. Get medical attention if irritation develops or persists. **Eyes –** Splashes or spray mist may cause irritation Remove contact lenses, irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart and seek medical advice. **Inhalation -** Can cause distress e.g. nausea, headache & vomiting especially when used in restricted areas Remove to fresh air. Keep the patient warm and at rest. Give Nil by Mouth and seek medical attention **Ingestion -** If accidentally swallowed, ***DO NOT*** induce vomiting and obtain medical attention	**Handling** ▪ Keep away from heat and ignition sources, including sparks and ***never*** smoke while handling product ▪ Ensure adequate ventilation in all work areas and avoid breathing in vapours ▪ Repeated exposure may cause skin dryness, cracking ▪ Wash hands with soap and warm water before breaks and after working with product. **Storage** ▪ Quantity of Armaflex Cleaner should be kept to a minimum ▪ Product should only be stored in manufacturers / suppliers containers with lid tightly closed when not in use ▪ Kept containers and stable in a cool (below 50°c), well-ventilated area away from direct sunlight and heat sources **Transport** ▪ COSHH assessment to be held in vehicle ▪ All containers ***MUST*** be suitably secured / restrained in the rear of the vehicle to prevent movement during transportation ▪ Vehicle should have a secure solid bulkhead to protect the driver ▪ Vehicle must with a suitable Fire Extinguisher carried on vehicles to combat vehicle fires

Assessment Rating Details								
Level of Risk with Control Measures in place –			**LOW**	**X**	**MEDIUM**		**HIGH**	
Assessor -	Trevor Foster	**Date -**	March 2018		**Review Date -**		March 2020	

COSHH Assessment Form

Product	Armafinish 99	**Product Picture**	**Hazard**
Manufacturer	Armacell UK Ltd, Mars Street, Oldham, Lancashire, OL9 6LY		
Composition	Contains the following components – **Tris(methylphenyl) phosphate** – CAS No -1330-78-5 >5% - <100% **1,2 Benzisothiazol-3(2H)-one** – CAS 2634-33-5 <0.5%		
Workplace Exposure Limit	None		

How is the Product / Substance Used	Quantity	Time Task takes & Frequency	Persons Exposed
Armafinish 99 is a water-based coating applied to provide protection of Armaflex flexible thermal insulation materials against sunlight, UV radiation and chemical attack. The coating, when fully cured, maintains the flexibility, resistance to water vapour and fire performance of the Armaflex material. Can be used by JGR engineering personnel, however only competent trained engineers, holding C&G 2079 F-gas Certificate, can carry out works on systems containing refrigerant gases.	Container size – 1ltr - 2.5ltrs	This product can be used throughout the duration of the works whilst using other Armaflex products	JGR Engineering Personnel

Working Methods & Controls	Personal Protective Equipment
Can be used by JGR engineering personnel, however only competent trained engineers, holding C&G 2079 F-gas Certificate, can carry out works on systems containing refrigerant gases. gases When working with Armafinish 99, engineers must always carry out works following all control measures and task methodologies detailed in all relevant JGR Method Statements, Task Procedures and Risk Assessments. Ensure adequate ventilation in all work areas, as this product may cause drowsiness or dizziness Clean all surfaces and the surface of the Armaflex with Armaflex Cleaner Apply thinly with a brush and leave to dry Once dry, additional coats of Armafinish 99 can be applied to provide further protection	   When working with Armafinish 99, operative are to use the following equipment – ▪ Gloves - Protective gloves – BS EN 374 ▪ Safety glasses - BS EN 166-349B ▪ Overalls / Long Sleeved Top

Accidental Release / Spillage	Fire Fighting
Initial Action – Clear immediate area and ensure the use of PPE for clean up **Clean-up Procedure –** Absorb spill with inert material (e.g. dry sand or earth) then place in a sealed container **Other Actions** – Avoid run off into drains, sewers and watercourses.	**Extinguishing Media –** Water Spray, Foam, Carbon Dioxide or Dry Powder **Hazards –** Material is stable under normal conditions. In the event of a prolonged fire, as with all organic materials, there will be carbon dioxide / carbon monoxide and water evolved together with small quantities of other gases, dependent upon the heat of the fire If involved in a fire, the following gasses may be released - Carbon Monoxide, Carbon Dioxide, Hydrogen, Phosphorus oxides

Exposure Monitoring & Health Surveillance	Disposal
Do not smoke while handling this product Do not eat or drink whilst handling this product No Health Surveillance required while using this product	Very toxic to aquatic life, with long lasting effects - Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. In case of entry into waterways, soil or drains, inform the responsible authorities.

First Aid	Safe Handling & Storage
Skin – Frequent or prolonged contact may irritate the skin irritation and/or cause dermatitis Take off all contaminated clothing and wash with soap and warm water. If irritation develops and persists obtain medical assistance, if required. **Eyes –** Can cause serious damage if splashed in eyes Hold eyelids apart and flush eyes with eye wash solution or plenty of clean water for at least 15 minutes. Remove contact lenses, if present and easy to do, and obtain medical advice **Inhalation -** Remove from exposure to place with fresh air and lie down. Obtain medical assistance, if required **Ingestion -** If swallowed, DO NOT induce vomiting. Seek medical attention	**Handling** ▪ Ensure adequate ventilation in all work areas ▪ Avoid contact with the skin, eyes and clothing – Wash hands thoroughly with soap and water, after handling product **Storage** ▪ Armafinish 99 should only be stored in manufacturers / suppliers containers with lid / cap tightly closed when not in use ▪ Store in a cool, well-ventilated area. Keep container tightly closed. ▪ Kept container upright and stable and store in a cool dry ventilated area away from sources of ignition, heat and humidity ▪ Keep away from oxidising agents **Transport** ▪ CoSHH assessment to be held in vehicle ▪ All containers ***MUST*** be suitably secured / restrained in the rear of the vehicle to prevent movement during transportation ▪ Vehicle must have a suitable 2kg Dry Powder Fire Extinguisher carried on vehicles to combat vehicle fires

Assessment Rating Details							
Level of Risk with Control Measures in place –		**LOW**	**X**	**MEDIUM**		**HIGH**	
Assessor -	Trevor Foster	**Date -**	March 2018	**Review Date -**	March 2020		

COSHH Assessment Form

Product	Gel Clear Tablets	**Product Picture**	**Hazard**
Manufacturer	Gel-Clear Ltd, Mill Gap Building, 145 Bolton Rd, Darwen, Lancs. BB3 1DF T 08443303643 www.gel-clear.co.uk **Emergency Contact No. - 111**		 **Danger –** **Harmful if swallowed** **Can cause skin irritation or eye damage**
Composition	Contains the following components – **Urea –** EC No. – 200-315-5 CAS No. 57-13-6 Percentage – 50 – 80% **Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides –** EC No. 269-919-4 CAS No. 68391-01-5 Percentage 15 – 30% **Ethanol –** EC No. – 200-578-6 CAS No. 64-17-5 Percentage – 1 – 5% **Amines C12-18-alkyldimethyl–** EC No. – 269-923-6 CAS No. 68391-04-8 Percentage – <1%		
Workplace Exposure Limit	**Ethanol –** WEL TWA (mg/m³) – 1920 mg/m³ WEL TWA (ppm) – 1000 ppm		

How is the Product / Substance Used	Quantity	Time Task takes & Frequency	Persons Exposed
Gel Clear tablets are a solid orange round tablet used to prevent the build-up of microbial mass, jelly and slime in refrigeration drains. The tablets slowly dissolve and release into the condensate waste water. The tablets leave a protective film on the condensate pan and case plumbing remaining effective for long periods, even once the tablet itself has dissolved. Can be used by JGR engineering personnel, with relevant knowledge, training and experience.	Pack of either 16 or 6 Tablets 1 tablet used at a time.	This product can be used throughout the duration of the works	JGR Engineering Personnel

Working Methods & Controls	Personal Protective Equipment
When working with Gel Clear Tablets, engineers must always carry out works following all control measures and task methodologies detailed in all relevant JGR Method Statements, Task Procedures and Risk Assessments. Operatives to be aware of the risks of contact with dirty condensate drain water. Ensure good ventilation of the work area prior to using product. Ensure all drains are flowing with no blockages. Place tablet in condensate drain pan, ensuring it is in contact with the water – Placing the tablet further from the drain outlet will increase the tablets lifespan and keep the pan cleaner for longer. One tablet is normally installed during a deep clean. The tablet will then slowly dissolve completely, coating everything it comes into contact with while the tablet is dissolving, remaining effective long after the tablet has disappeared	   When working with Gel Clear Tablets , operative are to use the following equipment – ▪ Gloves - Protective gloves – BS EN 511 ▪ Safety glasses - BS EN 166-349B ▪ Safety Footwear – BS EN ISO 20345 ▪ Overalls / Long Sleeved Top

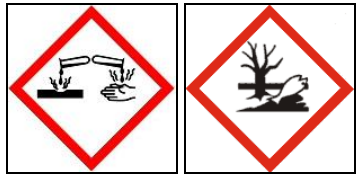
Accidental Release / Spillage	Fire Fighting
Initial Action – Ventilate spillage area. Avoid contact with skin, eyes and clothing. **Clean-up Procedure –** Collect spillage and dispose of in accordance with Disposal section of this CoSHH Assessment	**Extinguishing Media –** Use extinguishing media appropriate to the surrounding conditions Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Exposure Monitoring & Health Surveillance	Disposal
No Exposure Monitoring & Health Surveillance required	Product should naturally dissolve when in use and not require any further actions disposal Unused product should either be returned to the supplier or disposed of as hazardous waste or taken to a special waste collection point Packaging should be disposed / recycled as detailed on the packaging **Ecology Information –** This product is not considered harmful to aquatic organisms nor cause long term adverse effects on the environment. However avoid the discharge of large amounts into the sewers or the environment

First Aid	Safe Handling & Storage
Skin – Take off contaminated clothing and wash with plenty of soap and water. If skin irritation occurs, seek medical advice / attention **Eyes –** Can cause serious eye damage Bathe affected eye with running water for 15mins. Remove contact lenses, if present and easy to do, continue to rinse eye and obtain Medical assistance as soon as possible, for specialist examination. **Inhalation -** Remove person to fresh air and keep comfortable for breathing. Obtain medical assistance if you feel unwell. **Ingestion –** Harmful, if swallowed. Rinse mouth. Obtain medical assistance if you feel unwell. Call doctor or poison centre if you feel unwell while handling this product	**Handling** ▪ Ensure good ventilation of the work station. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. ▪ Wash contaminated clothing before reuse. ▪ Do not eat, drink or smoke when using this product. ▪ Always wash hands and other exposed areas thoroughly after handling this product. **Storage** ▪ Gel Clear Tablets should only be stored in manufacturers / suppliers containers with lid / cap tightly closed when not in use ▪ Kept container upright and stable and store in a cool dry, well-ventilated area away from sources of extreme heat, moisture **Transport** ▪ There are no special precautions required

Assessment Rating Details								
Level of Risk with Control Measures in place –			**LOW**	**X**	**MEDIUM**		**HIGH**	
Assessor -	Trevor Foster	**Date -**	March 2018		**Review Date -**		September 2020	

COSHH Assessment Form

Product	Jally Strips	Product Picture	Hazard
Manufacturer	Advanced Engineering Ltd, Guardian House, Stroudly Road, Basingstoke, RG24 8NL		
Composition	Contains the following components – **Amides Coco N-(Hydroxethyl) –** EC No. – 268-770-2 CAS 68140-00-1 Percentage 10 - 30% **Didecyldimethylammonium Chloride –** EC No – 230-525-2 CAS 7173-51-5 Percentage 1 – 10% **Ethanol –** EC No – 200-578-6 CAS 64-17-5 Percentage 1 – 10% **3-IODO-2-Propynyl Butylcarbamate –** EC No – 259-627-5 t Percentage < 1%		
Workplace Exposure Limit	Ethanol 8hr TWA 1920mg/m³		

How is the Product / Substance Used	Quantity	Time Task takes & Frequency	Persons Exposed
Jally Strips are a condensate tray treatment providing up to twelve months protection from slime build up caused by bacteria, fungi, algae and other micro-organisms. Jally Strips are designed specifically for use on large cooling systems. When used correctly, Jally Strips are safe to use in food preparation and storage areas. Can be used by JGR engineering personnel, with relevant knowledge, training and experience.	Pack of 6 Tablets / Strips 1 tablet / strip per metre of condensate to be used.	This product can be used throughout the duration of the works	JGR Engineering Personnel

Working Methods & Controls	Personal Protective Equipment
When working with Jally Strips tablets / strips, engineers must always carry out works following all control measures and task methodologies detailed in all relevant JGR Method Statements, Task Procedures and Risk Assessments. Prior to use ensure that the drains are flowing and clear of blockages. Place the strip in the tray at the highest end and adjacent to the coil ensuring it's in contact with the water so that the resulting treatment will cover the entire tray. For trays with a central drain hole, place a strip at the highest point on either side of the drain (1 strip per one metre of condensate). To ensure continued protection against slime and mould build-up, Jally Strips should be inspected annually - additional strips can be placed in the tray alongside partially used strips.	   When working with Smell Buster Tablets, operatives are to use the following equipment – ▪ Gloves - Impervious gloves ▪ Chemical Safety glasses - BS EN 166-349B ▪ Safety Footwear – BS EN ISO 20345 ▪ Overalls / Long Sleeved Top

Accidental Release / Spillage	Fire Fighting
Uncontaminated product may be recovered and used as directed. Product contaminated with hazardous material should be dealt with on the basis of the hazardous component (s). Protective clothing may be required to prevent contact with skin and eyes	If involved in a fire, if possible stop flow of product and cool from a protected position if safe to do so – All known fire extinguishers can be used to cool cylinders, use extinguishing media appropriate to the surrounding conditions In combustion emits toxic fumes. During combustion other unidentified fragments may be emitted. In case of fire do not breathe fumes - Use of self-contained breathing apparatus and protective clothing may be required to prevent contact with skin and eyes

Exposure Monitoring & Health Surveillance	Disposal
Do not smoke while handling this product Do not eat or drink whilst handling this product No Health Surveillance required while using this product	**Disposal operations -** Transfer to a suitable container and arrange for collection by specialised disposal company. **Disposal of packaging -** Dispose of as normal industrial waste.

First Aid	Safe Handling & Storage
Skin – Could cause mild irritation and an itchy rash at the site of contact Immediately wash area with plenty of mild soap and water for at least 15 minutes. Remove all contaminated clothes unless stuck to skin. Get medical attention if required after administering first aid. Wash clothing before reuse. Transfer to hospital if there are burns or symptoms of poisoning. **Eyes –** May cause eye irritation, pain and redness and cornea burns may occur. Immediately flush eyes with plenty of eye wash or water for 15 minutes, lifting lower and upper eyelids occasionally. If relevant, remove contact lenses. Transfer to hospital for specialist examination. **Inhalation –** Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible. **Ingestion –** There may be soreness and redness to the mouth and throat and could cause vomiting. Do **not** induce vomiting. Wash out mouth with water and give 1 cup of water to drink every 10minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.	**Handling** ▪ Ensure adequate ventilation in all work areas ▪ Avoid contact with the skin, eyes and clothing – Wash hands thoroughly with soap and water, after handling product **Storage** ▪ Jally Strips should only be stored in manufacturers / suppliers containers with lid / cap tightly closed when not in use ▪ Store in a cool, well-ventilated area. Keep container tightly closed. ▪ Kept container upright and stable and store in a cool dry ventilated area away from sources of ignition, heat and humidity ▪ Keep away from oxidising agents **Transport** ▪ CoSHH assessment to be held in vehicle ▪ All containers ***MUST*** be suitably secured / restrained in the rear of the vehicle to prevent movement during transportation ▪ Vehicle must have a suitable 2kg Dry Powder Fire Extinguisher carried on vehicles to combat vehicle fires

Assessment Rating Details								
Level of Risk with Control Measures in place –			**LOW**	**X**	**MEDIUM**		**HIGH**	
Assessor -	Trevor Foster	**Date -**	March 2018		**Review Date -**		March 2020	

COSHH Assessment Form

Product	Pro-Care Concentrated Evaporator Coil Cleaner	**Product Picture**	**Hazard**
Manufacturer	DiversiTech UK Ltd, Glaisdale Drive East, Nottingham, NG8 4LY		 Corrosive
Composition	Contains the following components – **Sodium Silicate –** EC No. – 215-687-4 CAS 1344-0908 - Percentage 1 - 3% **Alkylaryl Polyether Alcohol –** Percentage 0 – 5% **Alkyl Dimethylbenzyl ammonium chloride –** Percentage 0 – 5%		
Workplace Exposure Limit	This product does not have a workplace exposure limit.		

How is the Product / Substance Used	Quantity	Time Task takes & Frequency	Persons Exposed
Pro-Care Concentrated Evaporator Coil Cleaner is used as an efficient and highly effective indoor coil cleaner combined with a powerful disinfectant, which effectively kills MRSA, Legionella and many other germs Can be used by JGR engineering personnel, with relevant knowledge, training and experience.	5ltr Container Product diluted - Mix 8 parts water with 1 part Pro-Care - Pro-Care	This product can be used throughout the duration of the works	JGR Engineering Personnel

Working Methods & Controls	Personal Protective Equipment
When working with Pro-Care Concentrated Evaporator Coil Cleaner, engineers must always carry out works following all control measures and task methodologies detailed in all relevant JGR Method Statements, Task Procedures and Risk Assessments. Turn off unit before cleaning Mix 8 parts water with 1 part Pro-Care - Pro-Care should be diluted in a plastic container or low pressure sprayer Applied liberally to coil surface Allow 5-10 minutes for solution to react and dissolve contaminants and provide initial coil protection. Pro-Care is self-rinsing on evaporator coils but rinsing with clean water is recommended for condenser coils. **DEODORISING -** Apply a light spray of mixed Pro-Care into the air or onto air conditioner filters to remove odours.	   When working with Pro-Care Concentrated Evaporator Coil Cleaner, operatives are to use the following equipment – ▪ Gloves - Impervious gloves ▪ Chemical Safety glasses - BS EN 166-349B / Full Face Shield ▪ Safety Footwear – BS EN ISO 20345 ▪ Overalls / Long Sleeved Top

Accidental Release / Spillage	Fire Fighting
Initial Action – Contain and recover liquid, where possible **Clean-up Procedure –** Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.	**Extinguishing Media –** If involved in a fire, if possible stop flow of product & move away from cylinder & cool from a protected position if safe to do so – All known fire extinguishers can be used to cool cylinders, use extinguishing media appropriate to the surrounding conditions May produce carbon monoxide, carbon dioxide, hydrogen chloride or other unidentified waste if this product is involved in a fire In case of fire do not breathe fumes - Irritating and toxic gases may be released during a fire. Use of self-contained breathing apparatus may be required in confined spaces or any place where its accumulation could be dangerous, such as confined spaces, sewers, basements

Exposure Monitoring & Health Surveillance	Disposal
Ensure there is sufficient ventilation of the area. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.	Do not discharge into drains or rivers **Disposal operations –** Treat empty containers as hazardous waste **Disposal of packaging** – Treat empty containers as hazardous waste. Dispose of in a waste management facility.

First Aid	Safe Handling & Storage
Skin – Irritation: Corrosive, can cause burns Remove all contaminated clothing and footwear immediately, unless stuck to the skin. Flush the affected area with running water for at least 10mins or longer if substance still on skin. Obtain Medical assistance if required. **Eyes –** Risk of serious damage to eyes. Bathe affected eye with running water for 15mins. Obtain Medical assistance as soon as possible, for specialist examination. **Inhalation –** Harmful if swallowed Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Obtain Medical assistance as soon as possible. **Ingestion -** Call 999 immediately. Remove casualty from exposure, if safe to do so. If unconscious and breathing is OK, place in the recovery position. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. If person stops breathing give artificial respiration. Obtain Medical assistance as soon as possible.	**Handling** ▪ Ensure adequate ventilation in all work areas ▪ Avoid breathing vapours or mist. Avoid contact with the skin, eyes and clothing – Wash hands thoroughly with soap and water, after handling product **Storage** ▪ Pro-Care Concentrated Evaporator Coil Cleaner should only be stored in manufacturers / suppliers containers with lid / cap tightly closed when not in use ▪ Kept container upright and stable and store in a cool dry ventilated area away from sources of extreme heat, moisture **Transport** ▪ COSHH assessment to be held in vehicle ▪ All containers ***MUST*** be suitably secured / restrained in the rear of the vehicle to prevent movement during transportation ▪ Vehicle should have a secure solid bulkhead to protect the driver ▪ Vehicle must have a suitable 2kg Dry Powder Fire Extinguisher carried on vehicles to combat vehicle fires

Assessment Rating Details								
Level of Risk with Control Measures in place –			**LOW**	**X**	**MEDIUM**		**HIGH**	
Assessor -	Trevor Foster	**Date -**	March 2018		**Review Date -**		March 2020	

COSHH Assessment Form

Product	CoolSafe RTU (Ready to Use)	**Product Picture**	**Hazard**
Manufacturer	Advanced Engineering Ltd, Guardian House, Stroudly Road, Basingstoke, RG24 8NL **Emergency Contact – 01256 854318**		
Composition	Contains the following components – **Trisodium Nitrilotriacetate –** EC No. – 225-768-6 CAS 5064-31-3 Percentage <1% **Didecyldimethylammonium Chloride –** EC No – 230-525-2 CAS 7173-51-5 Percentage <1% **Non-ionic Surfactant –** EC No – N/A CAS 78330-21-9 Percentage <1% **Ionic Surfactant –** EC No – N/A CAS N/A Percentage <1%		
Workplace Exposure Limit	None detailed on MSDS		

How is the Product / Substance Used	Quantity	Time Task takes & Frequency	Persons Exposed
CoolSafe RTU is an effective coil cleaner and disinfectant used to effectively remove all common contaminants left by organic materials and foodstuffs on refrigeration system cooling coils CoolSafe RTU is safe to use on food display cabinets, walk-in refrigerators, freezers, food preparation and storage areas (CoolSafe RTU is registered by NSF) Can be used by JGR engineering personnel, with relevant knowledge, training and experience.	1 & 5ltr Containers	This product can be used throughout the duration of the works	JGR Engineering Personnel

Working Methods & Controls	Personal Protective Equipment
When working with CoolSafe RTU, engineers must always carry out works following all control measures and task methodologies detailed in all relevant JGR Method Statements, Task Procedures and Risk Assessments. Coolsafe RTU is ready to use and should not be diluted Turn off and isolate refrigeration equipment and remove all food items from work area - Ensure CoolSafe RTU does not come into contact with foodstuffs. Spray into coil, starting at top corner and working methodically across and down. Keep all surfaces wet for 5 minutes. Rinse thoroughly after use with fresh water CoolSafe RTU should be used in line with normal maintenance schedule - When used correctly, CoolSafe RTU is safe to use in food preparation and storage areas (CoolSafe RTU is registered by NSF)	   When working with CoolSafe RTU, operatives are to use the following equipment – ▪ Gloves - Impermeable gloves ▪ Tight Fitting Safety glasses - BS EN 166 ▪ Safety Footwear – BS EN ISO 20345 ▪ Overalls / Long Sleeved Top

Accidental Release / Spillage	Fire Fighting
Initial Action – Evacuate immediate area and ensure the use of PPE for clean-up. If able turn leaking container, leak-side up to minimise liquid loss. **Clean-up Procedure –** Absorb spill with inert material (e.g. dry sand or earth) then place in a sealed container and arrange for collection by specialised disposal company. Wash affected area with large amount of fresh water	If involved in a fire, if possible stop flow of product and cool from a protected position if safe to do so – All known fire extinguishers can be used to cool cylinders, use extinguishing media appropriate to the surrounding conditions In combustion emits toxic fumes - In case of fire do not breathe fumes **Advice for Fire Fighters** - Use of self-contained breathing apparatus and protective clothing may be required to prevent contact with skin and eyes

Exposure Monitoring & Health Surveillance	Disposal
Do not smoke while handling this product Do not eat or drink whilst handling this product No Health Surveillance required while using this product	**Disposal operations –** Transfer to a suitable container and arrange for collection by specialised disposal company. **Disposal of packaging –** Clean with fresh water and dispose of as normal industrial waste. Do not discharge in to drains or sewer - Very toxic to aquatic life with log lasting effects

First Aid	Safe Handling & Storage
Skin – Could cause mild irritation at the site of contact. Remove all contaminated clothes unless stuck to skin and wash area with plenty of soap and water for at least 15 minutes. Get medical attention if required after administering first aid. Wash clothing before reuse. **Eyes –** May cause eye irritation, pain and redness. Immediately flush eyes with plenty of eye wash or water for 15 minutes, lifting lower and upper eyelids occasionally. If relevant, remove contact lenses. Transfer to hospital for specialist examination. **Inhalation –** Remove casualty from exposure ensuring one's own safety whilst doing so. If conscious, ensure the casualty sits or lies down. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible. **Ingestion –** Do **not** induce vomiting. Wash out mouth with water and give 1 cup of water to drink every 10minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.	**Handling** ▪ Ensure adequate ventilation in all work areas ▪ Avoid contact with the skin, eyes and clothing – Wash hands thoroughly with soap and water, after handling product ▪ Avoid direct contact with the substance and breathing in fumes ▪ Do not handle in a confined space. **Storage** ▪ CoolSafe RTU should only be stored in manufacturers / suppliers containers with lid / cap tightly closed when not in use ▪ Store upright in a cool, dry, well-ventilated area. ▪ Keep container tightly closed upright and stable away from sources of heat ▪ Keep away from oxidising agents **Transport** ▪ CoSHH assessment to be held in vehicle ▪ All containers ***MUST*** be suitably secured / restrained in the rear of the vehicle to prevent movement during transportation ▪ Vehicle must have a suitable 2kg Dry Powder Fire Extinguisher carried on vehicles to combat vehicle fires

Assessment Rating Details							
Level of Risk with Control Measures in place –		**LOW**	**X**	**MEDIUM**		**HIGH**	
Assessor -	Trevor Foster	**Date -**	March 2018	**Review Date -**	March 2020		

COSHH Assessment Form

Product	DrainSafe	**Product Picture**	**Hazard**
Manufacturer	Advanced Engineering Ltd, Guardian House, Stroudly Road, Basingstoke, RG24 8NL **Emergency Contact – 01256 854318**		
Composition	Contains the following components – **Sodium Hydroxide –** EC No. – 215-185-5 CAS 1310-73-2 Percentage 10 - 30% **Sodium Silicate Solution –** EC No – 215-687-4 CAS 1344-09-8 Percentage 1 – 10%		
Workplace Exposure Limit	**Hazardous Ingredients -** Sodium Hydroxide 15min STEL 2mg/m³		

How is the Product / Substance Used	Quantity	Time Task takes & Frequency	Persons Exposed
DrainSafe is a bio-degradable drain un-blocker, used to unblock and remove biofilm from refrigeration systems. It has been designed to quickly dissolve slime and biofilms. These build-ups are commonly found in the condensate lines draining away from chilled storage and dairy cabinets and can cause blockages and the spread of bacteria. DrainSafe is acceptable for use on drains in and around food processing areas. Can be used by JGR engineering personnel, with relevant knowledge, training and experience.	500ml or 5ltr Container	This product can be used throughout the duration of the works	JGR Engineering Personnel

Working Methods & Controls	Personal Protective Equipment
When working with DrainSafe, engineers must always carry out works following all control measures and task methodologies detailed in all relevant JGR Method Statements, Task Procedures and Risk Assessments. Turn off and isolate refrigeration equipment and remove all food items from work area - Ensure DrainSafe does not come into contact with foodstuffs. Remove excess water from condensate tray, and condensate drain, if possible. Gently pour DrainSafe into the tray and allow it to enter the drain. Ensure DrainSafe does not come into contact with foodstuffs. Allow DrainSafe to remain in condensate tray and drain for five minutes or until obstruction is cleared. Flush out with fresh water for 2-3 minutes. Repeat as necessary until obstruction is cleared DrainSafe should be used in line with normal maintenance schedule - When used correctly, DrainSafe is safe to use in food preparation and storage areas (DrainSafe is registered by NSF)	 When working with Smell Buster Tablets, operatives are to use the following equipment – ▪ Gloves - Nitrile / Impermeable gloves ▪ Chemical Safety glasses - BS EN 166-349B ▪ Safety Footwear – BS EN ISO 20345 ▪ Overalls / Long Sleeved Top

Accidental Release / Spillage	Fire Fighting
Initial Action – Evacuate immediate area and ensure the use of PPE for clean-up. If able turn leaking container, leak-side up to minimise liquid loss. **Clean-up Procedure –** Absorb spill with inert material (e.g. dry sand or earth) then place in a sealed container and arrange for collection by specialised disposal company. Wash affected area with large amount of fresh water	If involved in a fire, if possible stop flow of product and cool from a protected position if safe to do so – All known fire extinguishers can be used to cool cylinders, use extinguishing media appropriate to the surrounding conditions In combustion emits toxic fumes. During combustion other unidentified fragments may be emitted. In case of fire do not breathe fumes - Use of self-contained breathing apparatus and protective clothing may be required to prevent contact with skin and eyes

Exposure Monitoring & Health Surveillance	Disposal
Do not smoke while handling this product Do not eat or drink whilst handling this product No Health Surveillance required while using this product	**Disposal operations –** Transfer to a suitable container and arrange for collection by specialised disposal company. **Disposal of packaging –** Clean with fresh water and dispose of as normal industrial waste. Do not discharge in to drains or sewers

First Aid	Safe Handling & Storage
Skin – There may be redness or whiteness of the skin in the area of exposure. Blistering may occur. Remove all contaminated clothes unless stuck to skin and drench the skin / area with plenty of water for at least 15 minutes. Get medical attention if required after administering first aid. Wash clothing before reuse. **Eyes –** May be pain and redness, eyes may water profusely. The vision may become blurred. Corneal burns may occur - May cause permanent damage. Immediately flush eyes with plenty of eye wash or water for 15 minutes, lifting lower and upper eyelids occasionally. If relevant and able, remove contact lenses. Transfer to hospital for specialist examination as soon as possible **Inhalation –** Remove casualty from exposure ensuring one's own safety whilst doing so. If conscious, ensure the casualty sits or lies down. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible. **Ingestion –** Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose. Do **not** induce vomiting. Wash out mouth with water and give 1 cup of water to drink every 10minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.	**Handling** ▪ Ensure adequate ventilation in all work areas ▪ Avoid contact with the skin, eyes and clothing – Wash hands thoroughly with soap and water, after handling product ▪ Ensure there is sufficient ventilation of the area. ▪ Do not handle in a confined space. Avoid the formation or spread of mists in the air. **Storage** ▪ DrainSafe should only be stored in manufacturers / suppliers containers with lid / cap tightly closed when not in use ▪ Store upright in a cool, dry, well-ventilated area. ▪ Keep container tightly closed upright and stable away from sources of heat ▪ Keep away from oxidising agents **Transport** ▪ CoSHH assessment to be held in vehicle ▪ All containers ***MUST*** be suitably secured / restrained in the rear of the vehicle to prevent movement during transportation ▪ Vehicle must have a suitable 2kg Dry Powder Fire Extinguisher carried on vehicles to combat vehicle fires

Assessment Rating Details								
Level of Risk with Control Measures in place –			**LOW**	**X**	**MEDIUM**		**HIGH**	
Assessor -	Trevor Foster	**Date -**	March 2018		**Review Date -**	March 2020		

COSHH Assessment Form

Product	HB 30 Ice Machine Cleaner & Disinfectant	**Product Picture**	**Hazard**
Manufacturer	Advanced Engineering Ltd, Guardian House, Stroudly Road, Basingstoke, RG24 8NL **Emergency Contact – 01256 854318**		 Corrosive
Composition	Contains the following components – **Orthophosphoric Acid –** EC No. – 231-633-2 CAS 7664-38-2 Percentage 10 - 30% **Acetic Acid –** EC No – 200-580-7 CAS 64-19-7 Percentage 1 – 10% **Didecyldimethylammonium Chloride –** EC No – 230-525-2 CAS 7173-51-5 Percentage <1%		
Workplace Exposure Limit	**Orthophosphoric Acid –** 8hr TWA - 1mg/m³ and 15min STEL 2mg/m³		

How is the Product / Substance Used	Quantity	Time Task takes & Frequency	Persons Exposed
HB 30 Ice Machine Cleaner & Disinfectant is a high strength descaler and disinfectant used to effectively remove lime scale and slime, which are common problems in ice machines and will disinfect all surfaces. HB 30 Ice Machine Cleaner & Disinfectant, when used correctly, is safe to use in food preparation and storage areas Can be used by JGR engineering personnel, with relevant knowledge, training and experience.	1 & 5ltr Containers Product diluted - Mix 60ml per litre of water	This product can be used throughout the duration of the works	JGR Engineering Personnel

Working Methods & Controls	Personal Protective Equipment
When working with HB 30 Ice Machine Cleaner & Disinfectant, engineers must always carry out works following all control measures and task methodologies detailed in all relevant JGR Method Statements, Task Procedures and Risk Assessments. Turn off refrigeration and leave pump in operation, if possible, drain machine and refill with fresh water. Add HB 30 Ice Machine Cleaner & Disinfectant to circulating water at a rate of about 60ml per litre and allow to circulate for about 30 minutes. Brush cleaning solution onto scaled surfaces not contacted by circulation - Extra-heavy scale may require another dose of HB 30 Ice Machine Cleaner & Disinfectant Drums may be cleaned by mixing 250ml HB-30 with 2 litres of water in a plastic container and brushing solution onto scaled surfaces. After scale removal, drain cleaning solution and flush thoroughly with fresh water. Use HB 30 Ice Machine Cleaner & Disinfectant in line with normal maintenance schedule	 When working with Smell Buster Tablets, operatives are to use the following equipment – ▪ Gloves - Impermeable gloves ▪ Tight Fitting Safety glasses - BS EN 166 ▪ Safety Footwear – BS EN ISO 20345 ▪ Overalls / Long Sleeved Top

Accidental Release / Spillage	Fire Fighting
Initial Action – Evacuate immediate area and ensure the use of PPE for clean up **Clean-up Procedure –** Absorb spill with inert material (e.g. dry sand or earth) then place in a sealed container and arrange for collection by specialised disposal company. Wash affected area with large amount of fresh water	If involved in a fire, if possible stop flow of product and cool from a protected position if safe to do so – All known fire extinguishers can be used to cool cylinders, use extinguishing media appropriate to the surrounding conditions In combustion emits toxic fumes. In case of fire do not breathe fumes - Use of self-contained breathing apparatus and protective clothing may be required to prevent contact with skin and eyes

Exposure Monitoring & Health Surveillance	Disposal
Do not smoke while handling this product Do not eat or drink whilst handling this product No Health Surveillance required while using this product	**Disposal operations –** Transfer to a suitable container and arrange for collection by specialised disposal company. **Disposal of packaging –** Clean with fresh water and dispose of as normal industrial waste.

First Aid	Safe Handling & Storage
Skin – Could cause irritation / redness / whiteness or blistering at the site of contact. Immediately remove all contaminated clothes unless stuck to skin and wash area with plenty of water for at least 15 minutes. Get medical attention if required after administering first aid. Wash clothing before reuse. Transfer to hospital if there are burns or symptoms of poisoning. **Eyes –** May cause eye irritation, pain and redness and cornea burns and permanent damage may occur. Immediately flush eyes with plenty of eye wash or water for 15 minutes, lifting lower and upper eyelids occasionally. If relevant, remove contact lenses. Transfer to hospital for specialist examination. **Inhalation –** There may be shortness of breath with a burning sensation in the throat. May cause coughing or wheezing. Remove casualty from exposure ensuring one's own safety whilst doing so. If conscious, ensure the casualty sits or lies down. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible. **Ingestion –** May be soreness and redness to the mouth and throat. Corrosive burns may appear around the lips. Blood may be vomited. Nausea and stomach pain may occur. Do **not** induce vomiting. Wash out mouth with water and give 1 cup of water to drink every 10minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.	**Handling** ▪ Ensure adequate ventilation in all work areas ▪ Avoid contact with the skin, eyes and clothing – Wash hands thoroughly with soap and water, after handling product ▪ Avoid direct contact with the substance. ▪ Ensure there is sufficient ventilation of the area. ▪ Do not handle in a confined space. **Storage** ▪ HB 30 Ice Machine Cleaner & Disinfectant should only be stored in manufacturers / suppliers containers with lid / cap tightly closed when not in use ▪ Store in a cool, dry, well-ventilated area. ▪ Keep container tightly closed upright and stable away from sources of heat **Transport** ▪ CoSHH assessment to be held in vehicle ▪ All containers ***MUST*** be suitably secured / restrained in the rear of the vehicle to prevent movement during transportation ▪ Vehicle must have a suitable 2kg Dry Powder Fire Extinguisher carried on vehicles to combat vehicle fires

Assessment Rating Details								
Level of Risk with Control Measures in place –			**LOW**	**X**	**MEDIUM**		**HIGH**	
Assessor -	Trevor Foster	**Date -**	March 2018		**Review Date -**		March 2020	

COSHH Assessment Form

Product	PyroCool	**Product Picture**	**Hazard**
Manufacturer	Advanced Engineering Ltd, Guardian House, Stroudly Road, Basingstoke, RG24 8NL **Emergency Contact – 01256 854318**		
Composition	Contains the following components –		
Workplace Exposure Limit	None detailed on MSDS		

How is the Product / Substance Used	Quantity	Time Task takes & Frequency	Persons Exposed
PyroCool™ is a heat-dissipating, flame-retardant gel, developed to dramatically reduce heat transfer during soldering, brazing and welding. PyroCool™ protects against scorching of materials, loosening of existing joints and damaging of sensitive components. Can be used by JGR engineering personnel, with relevant knowledge, training and experience.	250ml, 500ml or 1ltr Containers	This product can be used throughout the duration of the works	JGR Engineering Personnel

Working Methods & Controls

When working with PyroCool, engineers must always carry out works following all control measures and task methodologies detailed in all relevant JGR Method Statements, Task Procedures and Risk Assessments.

PyroCool is ready to use and should not be diluted - At first time of use, sprayer will require priming – possibly 30 pumps.

Spray onto pipework and adjacent surfaces, or components to be protected, using a fine or coarse spray as appropriate - For best results, ensure coating is as thick and even as possible.

Note - During application of heat, PyroCool™ may evaporate; simply apply further coatings to maintain protection.

PyroCool™ is not expected to harm any surfaces - If in doubt, test on a small, non-crucial area first.

On completion of brazing, soldering or welding, wipe all surfaces or components clean with a damp cloth.

Do not allow product and sprayer to freeze.

Personal Protective Equipment

When working with PyroCool, operatives are to use the following equipment –

- Gloves - Impermeable gloves
- Tight Fitting Safety glasses - BS EN 166
- Safety Footwear – BS EN ISO 20345
- Overalls / Long Sleeved Top

Accidental Release / Spillage	Fire Fighting
Initial Action – Evacuate immediate area and ensure the use of PPE for clean-up. If able turn leaking container, leak-side up to minimise liquid loss. **Clean-up Procedure –** Absorb spill with inert material (e.g. dry sand or earth) then place in a sealed container and arrange for collection by specialised disposal company. Wash affected area with large amount of fresh water	If involved in a fire, if possible stop flow of product and cool from a protected position if safe to do so – All known fire extinguishers can be used to cool cylinders, use extinguishing media appropriate to the surrounding conditions **Advice for Fire Fighters** - Use of self-contained breathing apparatus and protective clothing may be required to prevent contact with skin and eyes

Exposure Monitoring & Health Surveillance	Disposal
Do not smoke while handling this product Do not eat or drink whilst handling this product No Health Surveillance required while using this product	**Disposal operations –** Transfer to a suitable container and arrange for collection by specialised disposal company. **Disposal of packaging –** Clean with fresh water and dispose of as normal industrial waste.

First Aid	Safe Handling & Storage
Skin – Could cause mild irritation at the site of contact. Remove all contaminated clothes unless stuck to skin and wash area with plenty of soap and water for at least 15 minutes. Get medical attention if required after administering first aid. Wash clothing before reuse. **Eyes –** May cause eye irritation, pain and redness. Immediately flush eyes with plenty of eye wash or water for 15 minutes, lifting lower and upper eyelids occasionally. If relevant, remove contact lenses. Transfer to hospital for specialist examination. **Inhalation –** N/A Inhalation is not considered a potential route of exposure **Ingestion –** May cause soreness and redness of the mouth and throat. Do **not** induce vomiting. Wash out mouth with water and give 1 cup of water to drink every 10minutes. Get medical attention if required after administering first aid	**Handling** ▪ Ensure adequate ventilation in all work areas ▪ Avoid contact with the skin, eyes and clothing – Wash hands thoroughly with soap and water, after handling product ▪ Avoid direct contact with the substance and breathing in fumes ▪ Do not handle in a confined space. **Storage** ▪ PyroCool should only be stored in manufacturers / suppliers containers with lid / cap tightly closed when not in use ▪ Store upright in a cool, dry, well-ventilated area. ▪ Keep container tightly closed upright and stable away from sources of direct sunlight and heat **Transport** ▪ CoSHH assessment to be held in vehicle ▪ All containers ***MUST*** be suitably secured / restrained in the rear of the vehicle to prevent movement during transportation ▪ Vehicle must have a suitable 2kg Dry Powder Fire Extinguisher carried on vehicles to combat vehicle fires

Assessment Rating Details								
Level of Risk with Control Measures in place –			**LOW**	**X**	**MEDIUM**		**HIGH**	
Assessor -	Trevor Foster	**Date -**	March 2018		**Review Date -**		March 2020	

COSHH Assessment Form

Product	StayClean Mini Tablets	**Product Picture**	**Hazard**
Manufacturer	Advanced Engineering Ltd, Guardian House, Stroudly Road, Basingstoke, RG24 8NL **Emergency Contact – 01256 854318**		 **Harmful if swallowed**
Composition	Contains the following components – **Alkyl Dimethyl Benzyl Ammonium Chloride –** EC No. – 270-325-2 CAS 68424-85-1 Percentage 1 - 10%		
Workplace Exposure Limit	None detailed on MSDS		

How is the Product / Substance Used	Quantity	Time Task takes & Frequency	Persons Exposed
StayClean Mini Tablets are an inexpensive, easy-to-use condensate tray treatment. The tablets will control odours and prevent sludge build-ups and blockages in the condensate tray and drain. They are safe to use, non-corrosive and, being totally soluble, leaving no residues to create further problems. One tablet will treat a 2-3kW system and will last for a month. Multiple tablets can be used in larger systems for maximum flexibility. Can be used by JGR engineering personnel, with relevant knowledge, training and experience.	Packet of 20 tablets	This product can be used throughout the duration of the works	JGR Engineering Personnel

Working Methods & Controls	Personal Protective Equipment
When working with StayClean Mini Tablets, engineers must always carry out works following all control measures and task methodologies detailed in all relevant JGR Method Statements, Task Procedures and Risk Assessments. Place the tablet in the tray at the highest end, and adjacent to the coil, so that the resulting treatment will cover the entire tray. For larger systems multiple tablets may be used. For initial applications, or where the tray and drain are severely contaminated, double the suggested treatment rate. One tablet will treat a 2-3kW system and will last for a month. Multiple tablets can be used in larger systems for maximum flexibility. Disposal Product and packaging: Dispose of as normal industrial waste	 When working with StayClean Mini Tablets, operatives are to use the following equipment – ▪ Gloves - Nitrile / Impermeable gloves ▪ Chemical Safety glasses - BS EN 166-349B ▪ Safety Footwear – BS EN ISO 20345 ▪ Overalls / Long Sleeved Top

Accidental Release / Spillage	Fire Fighting
Initial Action – Evacuate immediate area and ensure the use of PPE for clean-up. **Clean-up Procedure –** If able recover whole tablets, then absorb spill with inert material (e.g. dry sand or earth) then place in a sealed container and arrange for collection by specialised disposal company. Wash affected area with large amount of fresh water	If involved in a fire, if possible stop flow of product and cool from a protected position if safe to do so – All known fire extinguishers can be used to cool cylinders, use extinguishing media appropriate to the surrounding conditions In combustion emits toxic fumes. During combustion other unidentified fragments may be emitted. In case of fire do not breathe fumes - Use of self-contained breathing apparatus and protective clothing may be required to prevent contact with skin and eyes

Exposure Monitoring & Health Surveillance	Disposal
Do not smoke while handling this product Do not eat or drink whilst handling this product No Health Surveillance required while using this product	**Disposal operations –** Transfer to a suitable container and arrange for collection by specialised disposal company. **Disposal of packaging –** Clean with fresh water and dispose of as normal industrial waste. Do not discharge in to drains or sewers - Very toxic to aquatic life with log lasting effects

First Aid	Safe Handling & Storage
Skin – Could cause mild irritation and an itchy rash at the site of contact Immediately wash area with plenty of mild soap and water for at least 15 minutes. Remove all contaminated clothes unless stuck to skin. Get medical attention if required after administering first aid. Wash clothing before reuse. Transfer to hospital if there are burns or symptoms of poisoning. **Eyes –** May cause eye irritation, pain and redness and cornea burns may occur. Immediately flush eyes with plenty of eye wash or water for 15 minutes, lifting lower and upper eyelids occasionally. If relevant, remove contact lenses. Transfer to hospital for specialist examination. **Inhalation –** Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible. **Ingestion –** There may be soreness and redness to the mouth and throat and could cause vomiting. Do **not** induce vomiting. Wash out mouth with water and give 1 cup of water to drink every 10minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.	**Handling** ▪ Ensure adequate ventilation in all work areas ▪ Avoid contact with the skin, eyes and clothing – Wash hands thoroughly with soap and water, after handling product ▪ Avoid the formation or spread of dust in the air - Ensure there is sufficient ventilation of the area ▪ Do not handle in a confined space. **Storage** ▪ StayClean Mini Tablets should only be stored in manufacturers / suppliers containers with packet closed when not in use ▪ Store in a cool, dry, well-ventilated area. ▪ Keep packet tightly closed and stable away from sources of heat ▪ Keep away from oxidising agents **Transport** ▪ CoSHH assessment to be held in vehicle ▪ All packet ***MUST*** be suitably secured / restrained in the rear of the vehicle to prevent movement during transportation ▪ Vehicle must have a suitable 2kg Dry Powder Fire Extinguisher carried on vehicles to combat vehicle fires

Assessment Rating Details								
Level of Risk with Control Measures in place –			**LOW**	**X**	**MEDIUM**		**HIGH**	
Assessor -	Trevor Foster	**Date -**	March 2018		**Review Date -**		March 2020	