

Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: **SIG-COAG**
 Substance type: CLP Mixture

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Use of the Substance/Mixture : WATER CLARIFICATION AID
 Identified uses : Water clarification Aid
 Recommended restrictions on use : Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet:

COMPANY IDENTIFICATION :

STONE INDUSTRY GROUP LTD
 UNIT E3-E5
 SOVEREIGN BUSINESS PARK
 BURTON ON TRENT, DE14 1PD
 UNITED KINGDOM
 TEL. +44 (0)1283 617888
 Email: office@sig.ltd
www.sig.ltd

1.4 Emergency telephone number: +44 (0)1283 617888

Date of Compilation/Revision: 09.03.2017
 Version Number: 1.3

Section: 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Precautionary Statements	:	Prevention: P264	Wash hands thoroughly after handling.
		Response: P314	Get medical advice/ attention if you feel unwell.
		Storage: P401	Store in accordance with local regulations.

SIG-COAG**2.3 Other hazards**

None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixtures****Hazardous components**

Chemical Name	CAS-No. EC-No. REACH No.	Classification (REGULATION (EC) No 1272/2008)	Concentration: [%]
Substances with a workplace exposure limit :			
Aluminum Chloride Hydroxide	12042-91-0 234-933-1 01-2119533142-53	Not Classified;	50 - <= 100

Section: 4. FIRST AID MEASURES**4.1 Description of first aid measures**

- If inhaled : Get medical attention if symptoms occur.
- In case of skin contact : Wash off with soap and plenty of water.
Get medical attention if symptoms occur.
- In case of eye contact : Rinse with plenty of water.
Get medical attention if symptoms occur.
- If swallowed : Rinse mouth.
Get medical attention if symptoms occur.
- Protection of first-aiders : In event of emergency assess the danger before taking action.
Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of immediate medical attention and special treatment needed

- Treatment : No specific measures identified.

Section: 5. FIREFIGHTING MEASURES**5.1 Extinguishing media**

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : Not flammable or combustible.
- Hazardous combustion : Decomposition products may include the following materials:

SIG-COAG

products	Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus
----------	--

5.3 Advice for firefighters

Special protective equipment for firefighters	: Use personal protective equipment.
Further information	: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section: 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel	: Refer to protective measures listed in sections 7 and 8.
Advice for emergency responders	: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

6.2 Environmental precautions

Environmental precautions	: No special environmental precautions required.
---------------------------	--

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.
-------------------------	--

6.4 Reference to other sections

See Section 1 for emergency contact information.
For personal protection see section 8.
See Section 13 for additional waste treatment information.

Section: 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling	: For personal protection see section 8. Wash hands after handling.
Hygiene measures	: Wash hands before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	: Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.
---	---

SIG-COAG

Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: PVC, Buna-N, Polyurethane, Viton, Polypropylene, Polyethylene, Hypalon, EPDM, Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use., Neoprene

Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Brass, Mild steel, Stainless Steel 304, Stainless Steel 316L, Epoxy phenolic resin

7.3 Specific end uses

Specific use(s) : WATER CLARIFICATION AID

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters****Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Aluminum Chloride Hydroxide	12042-91-0	TWA	2 mg/m3 (Aluminium)	UKCOSSTD
Further information	2	Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used		

DNEL

Aluminum Chloride Hydroxide	:	End Use: Consumers Exposure routes: Ingestion Potential health effects: Long-term systemic effects Value: 1.2 ppm
	:	End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 7.1 mg/m3

PNEC

Aluminum Chloride Hydroxide	:	Fresh water Value: 0.0003 mg/l
	:	Marine water Value: 0.00003 mg/l
	:	Soil Value: 1 mg/kg
	:	Sewage treatment plant Value: 20 mg/l

8.2 Exposure controls**Appropriate engineering controls**

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands before breaks and immediately after handling the

SIG-COAG

product.

- | | | |
|--|---|--|
| Eye/face protection (EN 166) | : | Safety glasses |
| Hand protection (EN 374) | : | Recommended preventive skin protection
Gloves
Nitrile rubber
butyl-rubber
Breakthrough time: 1 – 4 hours
Minimum thickness for butyl-rubber 0.3 mm for nitrile rubber 0.2 mm or equivalent (please refer to the gloves manufacturer/distributor for advise).
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. |
| Skin and body protection (EN 14605) | : | Wear suitable protective clothing. |
| Respiratory protection (EN 143, 14387) | : | When respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization, consider the use of certified respiratory protection equipment meeting EU requirements (89/656/EEC, 89/686/EEC), or equivalent, with filter type:P |

Environmental exposure controls

- | | | |
|----------------|---|---|
| General advice | : | Consider the provision of containment around storage vessels. |
|----------------|---|---|

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- | | | |
|---|---|------------------------------|
| Appearance | : | Liquid |
| Colour | : | Colorless |
| Odour | : | None |
| Flash point | : | does not flash |
| pH | : | 4.00 - 4.40, 30 %
(25 °C) |
| Odour Threshold | : | no data available |
| Melting point/freezing point | : | FREEZING POINT: -5 °C |
| Initial boiling point and boiling range | : | 104 °C |
| Evaporation rate | : | no data available |
| Flammability (solid, gas) | : | no data available |
| Upper explosion limit | : | no data available |
| Lower explosion limit | : | no data available |
| Vapour pressure | : | similar to water |

SIG-COAG

Relative vapour density	: no data available
Relative density	: 1.34 (25 °C)
Solubility(ies)	
Water solubility	: completely soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition temperature	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Explosive properties	: no data available
Oxidizing properties	: no data available

9.2 Other information

no data available

Section: 10. STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : Extremes of temperature

10.5 Incompatible materials

Materials to avoid : Strong Bases

10.6 Hazardous decomposition products

Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus
----------------------------------	---

Section: 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

SIG-COAG

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Toxicity

Product

Acute oral toxicity : There is no data available for this product.
Acute inhalation toxicity : There is no data available for this product.
Acute dermal toxicity : There is no data available for this product.
Skin corrosion/irritation : There is no data available for this product.

Serious eye damage/eye irritation : There is no data available for this product.

Respiratory or skin sensitization : There is no data available for this product.

Carcinogenicity : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive effects : No toxicity to reproduction
Germ cell mutagenicity : Contains no ingredient listed as a mutagen
Teratogenicity : There is no data available for this product.
STOT - single exposure : Based on available data, the classification criteria are not met.
STOT - repeated exposure : There is no data available for this product.
Aspiration toxicity : No aspiration toxicity classification

Components

Acute oral toxicity : Aluminum Chloride Hydroxide
LD50 rat: 2,293.75 mg/kg

Components

Acute dermal toxicity : Aluminum Chloride Hydroxide
LD50 rat: > 2,000 mg/kg

Potential Health Effects

Eyes : Health injuries are not known or expected under normal use.

Skin : Health injuries are not known or expected under normal use.

Ingestion : Health injuries are not known or expected under normal use.

Inhalation : Health injuries are not known or expected under normal use.

SIG-COAG

Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact : No symptoms known or expected.

Skin contact : No symptoms known or expected.

Ingestion : No symptoms known or expected.

No symptoms known or expected.

Inhalation : No symptoms known or expected.

Further information : no data available

Section: 12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

Product

Environmental Effects : This product has no known ecotoxicological effects.

Toxicity to fish : 96 hrs LC50 Rainbow Trout: 590 mg/l
Test substance: Product

96 hrs LC50 Fathead Minnow: 1,094 mg/l
Test substance: Product

96 hrs NOEC Rainbow Trout: 250 mg/l
Test substance: Product

96 hrs NOEC Fathead Minnow: 313 mg/l
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates : 48 hrs LC50 Daphnia magna: > 5,000 mg/l
Test substance: Product

48 hrs LC50 Ceriodaphnia dubia: > 5,000 mg/l
Test substance: Product

48 hrs NOEC Daphnia magna: 5,000 mg/l
Test substance: Product

48 hrs NOEC Ceriodaphnia dubia: 2,500 mg/l
Test substance: Product

Toxicity to algae : no data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : 7 Days NOEC Ceriodaphnia dubia: 15 mg/l
Test substance: Product
GLP: no

7 Days LOEC Ceriodaphnia dubia: 30 mg/l
Test substance: Product

SIG-COAG

7 Days EC25 / IC25 Ceriodaphnia dubia: 7.2 mg/l
Test substance: Product

7 Days IC50 Ceriodaphnia dubia: 10.3 mg/l
Test substance: Product

7 Days NOEC Ceriodaphnia dubia: 7.5 mg/l
Test substance: Product
GLP: no

7 Days LOEC Ceriodaphnia dubia: 15 mg/l
Test substance: Product
GLP: no

Components

Toxicity to fish : Aluminum Chloride Hydroxide
96 h LC50 Danio rerio (zebra fish): > 100 mg/l

Components

Toxicity to daphnia and other aquatic invertebrates : Aluminum Chloride Hydroxide
48 h EC50 Daphnia magna (Water flea): > 200 mg/l

Components

Toxicity to bacteria : Aluminum Chloride Hydroxide
> 4.4 mg/l

Components

Toxicity to fish (Chronic toxicity) : Aluminum Chloride Hydroxide
60 d NOEC: 0.013 mg/l

12.2 Persistence and degradability

Product

Biodegradability : Greater than 95% of this product consists of inorganic substances for which a biodegradation value is not applicable.

Components

Biodegradability : Aluminum Chloride Hydroxide
Result: Not applicable - inorganic

12.3 Bioaccumulative potential

Product

Bioaccumulation : This preparation or material is not expected to bioaccumulate.

12.4 Mobility in soil

Product

The portion in water is expected to be soluble or dispersible.

SIG-COAG**12.5 Results of PBT and vPvB assessment****Product**

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

12.6 Other adverse effects

No adverse effects expected.

Section: 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with the European Directives on waste and hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

13.1 Waste treatment methods

Product : Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations.
Dispose of wastes in an approved waste disposal facility.

Contaminated packaging : Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

Guidance for Waste Code selection : Inorganic wastes containing not dangerous substances with concentration $\geq 0.1\%$. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable European (EU Directive 2008/98/EC) and local regulations.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (ADR/ADN/RID)

14.1 UN number: Not applicable.
14.2 UN proper shipping name: PRODUCT IS NOT REGULATED DURING TRANSPORTATION
14.3 Transport hazard class(es): Not applicable.
14.4 Packing group: Not applicable.
14.5 Environmental hazards: No
14.6 Special precautions for user: Not applicable.

Air transport (IATA)

14.1 UN number: Not applicable.

SIG-COAG

14.2 UN proper shipping name:	PRODUCT IS NOT REGULATED DURING TRANSPORTATION
14.3 Transport hazard class(es):	Not applicable.
14.4 Packing group:	Not applicable.
14.5 Environmental hazards:	No
14.6 Special precautions for user:	Not applicable.

Sea transport (IMDG/IMO)

14.1 UN number:	Not applicable.
14.2 UN proper shipping name:	PRODUCT IS NOT REGULATED DURING TRANSPORTATION
14.3 Transport hazard class(es):	Not applicable.
14.4 Packing group:	Not applicable.
14.5 Environmental hazards:	No
14.6 Special precautions for user:	Not applicable.
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	Not applicable.

Section: 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture :

INTERNATIONAL REGULATIONS

FOOD AND DRUG ADMINISTRATION (FDA) Federal Food, Drug and Cosmetic Act
When use situations necessitate compliance with FDA regulations, this product is acceptable under: 21 CFR 176.170 Components of paper and paperboard in contact with aqueous and fatty foods and 21 CFR 176.180 Components of paper and paperboard in contact with dry foods. This product has been affirmed as GRAS (Generally Recognized as Safe) under 21 CFR 570.30 for use in animal feed, when used according to the following limitations:

The following limitations apply:

Maximum dosage	Limitation
500 MG/L (AS PRODUCT)	

Limitations: no more than required to produce intended technical effect. Paper and paperboard manufactured with this additive may be used in contact with all food types under conditions of use A-H and J as described within 21 CFR 176.170(c), Tables 1 and 2.

INTERNATIONAL CHEMICAL CONTROL LAWS

CANADA

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

United States TSCA Inventory

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

NATIONAL REGULATIONS GERMANY

Water contaminating class	: WGK 1
(Germany)	Classification according VwVwS, Annex 4.

FEDERAL INSTITUTE FOR RISK ASSESSMENT (BfR) RECOMMENDATION

SIG-COAG

Acceptable Sections: In compliance with recommendation BfR XXXVI
Limit. Value Comment: no dosage limit

Acceptable Sections: In compliance with recommendation BfR XXXVI/2
Limitation Value: 0.18 %
Limit. Value Comment: product based on dry fiber

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out.

Section: 16. OTHER INFORMATION**Procedure used to derive the classification according to REGULATION (EC) No 1272/2008**

Classification	Justification
Not a hazardous substance or mixture.	Calculation method

Full text of other abbreviations

ADN – European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS – Australian Inventory of Chemical Substances; ASTM – American Society for the Testing of Materials; bw – Body weight; CLP – Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR – Carcinogen, Mutagen or Reproductive Toxicant; DIN – Standard of the German Institute for Standardisation; DSL – Domestic Substances List (Canada); ECHA – European Chemicals Agency; EC-Number – European Community number; ECx – Concentration associated with x% response; ELx – Loading rate associated with x% response; EmS – Emergency Schedule; ENCS – Existing and New Chemical Substances (Japan); ErCx – Concentration associated with x% growth rate response; GHS – Globally Harmonized System; GLP – Good Laboratory Practice; IARC – International Agency for Research on Cancer; IATA – International Air Transport Association; IBC – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 – Half maximal inhibitory concentration; ICAO – International Civil Aviation Organization; IECSC – Inventory of Existing Chemical Substances in China; IMDG – International Maritime Dangerous Goods; IMO – International Maritime Organization; ISHL – Industrial Safety and Health Law (Japan); ISO – International Organisation for Standardization; KECI – Korea Existing Chemicals Inventory; LC50 – Lethal Concentration to 50 % of a test population; LD50 – Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL – International Convention for the Prevention of Pollution from Ships; n.o.s. – Not Otherwise Specified; NO(A)EC – No Observed (Adverse) Effect Concentration; NO(A)EL – No Observed (Adverse) Effect Level; NOELR – No Observable Effect Loading Rate; NZIoC – New Zealand Inventory of Chemicals; OECD – Organization for Economic Co-operation and Development; OPPTS – Office of Chemical Safety and Pollution Prevention; PBT – Persistent, Bioaccumulative and Toxic substance; PICCS – Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR – (Quantitative) Structure Activity Relationship; REACH – Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID – Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT – Self-Accelerating Decomposition Temperature; SDS – Safety Data Sheet; TCSI – Taiwan Chemical Substance Inventory; TRGS – Technical Rule for Hazardous Substances; TSCA – Toxic Substances Control Act (United States); UN – United Nations; vPvB – Very Persistent and Very Bioaccumulative

Further information

Sources of key data used to : IARC Monographs on the Evaluation of the Carcinogenic Risk

SIG-COAG

compile the Safety Data Sheet

of Chemicals to Man, Geneva: World Health Organization, International Agency for Research on Cancer.

The possible key literature references and data sources which may have been used in conjunction with the consideration of expert judgment to compile this Safety Data Sheet: European regulations/directives (including (EC) No. 1907/2006, (EC) No. 1272/2008), supplier data, inter-net, ESIS, IUCLID, ERICards, Non European official regulatory data and other data sources.

Prepared By : Regulatory Affairs

Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Annex: Exposure Scenarios**Exposure Scenario: Water clarification Aid**

Life Cycle Stage	:	Industrial uses: Uses of substances as such or in preparations at industrial sites
Sector of use	:	SU2a Mining, (without offshore industries)
		SU2b Offshore industries
		SU4 Manufacture of food products
		SU5 Manufacture of textiles, leather, fur
		SU6a Manufacture of wood and wood products
		SU8 Manufacture of bulk, large scale chemicals (including petroleum products)
		SU9 Manufacture of fine chemicals
		SU11 Manufacture of rubber products
		SU12 Manufacture of plastics products, including compounding and conversion
		SU13 Manufacture of other non-metallic mineral products, e.g. plasters, cement
		SU14 Manufacture of basic metals, including alloys
		SU16 Manufacture of computer, electronic and optical products, electrical equipment

SIG-COAG

SU17 General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment

SU23 Electricity, steam, gas water supply and sewage treatment

Contributing scenario controlling environmental exposure for:

Environmental release category : **ERC6b** Industrial use of reactive processing aids

Daily amount per site : 10000 kg

Type of Sewage Treatment Plant : Standard STP

Contributing scenario controlling worker exposure for:

Process category : **PROC8a** Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities

Exposure duration : 15 min

Operational conditions and risk management measures : Indoor

Local Exhaust Ventilation is not required

General ventilation Ventilation rate per hour: 1

Skin Protection : Yes: See Section 8

Respiratory Protection : No

Contributing scenario controlling worker exposure for:

Process category : **PROC4** Use in batch and other process (synthesis) where opportunity for exposure arises

Exposure duration : 60 min

Operational conditions and risk management measures : Indoor

Local Exhaust Ventilation is not required

General ventilation Ventilation rate per hour: 1

Skin Protection : Yes: See Section 8

Respiratory Protection : No

Contributing scenario controlling worker exposure for:

Process category : **PROC15** Use as laboratory reagent

Exposure duration : 60 min

Operational conditions and risk management measures : Indoor

SIG-COAG

Local Exhaust Ventilation is not required

General ventilation Ventilation rate per hour: 1

Skin Protection : Yes: See Section 8

Respiratory Protection : No

Contributing scenario controlling worker exposure for:

Exposure duration : 240 min

Operational conditions and risk management measures : Indoor

Local Exhaust Ventilation is not required

General ventilation Ventilation rate per hour: 1

Skin Protection : Yes: See Section 8

Respiratory Protection : No