SECTION 1 : Identification of the substance/mixture and of the company/undertaking

1.1 **Product Identifier**

Product Name :	Spa & Hot Tub Flush
Datasheet Number :	SDS015
Unique Formula Identifier:	2910-G00G-K00U-AFFS

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

Application of the substance / the mixture	PC35 Washing and cleaning products (including solvent based products).
Identified Use(s) Uses advised against	Any use carrying a risk of direct contact with eyes/ skin where workers are exposed without adequate personal protective equipment (PPE). Processes involving extreme heat use advised against.

1.3 **Details of the supplier of the safety data sheet**

Name of Supplier	Plastica Ltd
Address of Supplier	Perimeter House, Napier Road St Leonards-on-Sea, East Sussex TN38 9NY, United Kingdom
Telephone	+44 (0) 1424 857857
E-mail (competent person)	info@plasticapools.net

1.4 **Emergency Telephone Number**

Emergency Phone No	0800 043 0891 (Technical) 24 Hours a day 0800 043 0892 (Emergency)
Languages Spoken	English

Members of the public seeking specific information on poisons should contact: I
n England and Wales: NHS 111 - dial 111
In Scotland: NHS 24 - dial 111

SECTION 2 : Hazards Identification

2.1 **Classification of the substance or mixture**
Classification according to Regulation (EC) No 1272/2008

Eye Irrit. 2	H319 Causes serious eye irritation.
Skin Irrit. 1	H317 May cause an allergic skin reaction.

2.2 **Label elements**

Labelling according to GB-CLP The product is classified and labelled according to the GB CLP regulation



GHS07

Signal word Warning

Hazard determining components of labelling: Amides, tall-oil fatty, N, N-di-Me

Hazard Statements

H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.

2.2 cont..

Precautionary Statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves / eye protection / face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information: Product contains: Reportable explosives precursors. Acquisition, possession or use by the general public is restricted.

The Detergents (Amendment) (EU Exit) Regulations 2020 / Labelling for contents	
non-ionic surfactants, phosphates	<5%

2.3 Other hazards

Results of PBT and vPvB assessment: PBT: Not applicable. vPvB: Not applicable.

SECTION 3 : Composition/Information on Ingredients

3.2 **Chemical characterisation:** Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
CAS: 7664-93-9 EINECS: 231-639-5 Index number: 016-020-00-8 Reg.nr.: 01-2119458838-20-XXXX	Sulphuric acid Skin Corr. 1A, H314 Note: B Specific concentration limits: Skin Corr. 1A; H314: C ≥ 15 % Skin Irrit. 2; H315: 5 % ≤ C < 15 % Eye Irrit. 2; H319: 5 % ≤ C < 15 %	2.5 – < 10%
CAS: 78330-20-8 EC number: 616-607-4	Alcohols, C9-11-iso-, C10-rich, ethoxylated Eye Dam. 1, H318; Acute Tox. 4, H302	1 – 2.5%
CAS: 68308-74-7 EINECS: 269-665-4 Reg.nr.: 01-2119983524-29-XXXX	Amides, tall-oil fatty, N,N-di-Me Aquatic Acute 1, H400 (M=10); Aquatic Chronic 2, H411; Skin Sens. 1B, H317	1 – < 2.5%
CAS: 34590-94-8 EINECS: 252-104-2 Reg.nr.: 01-2119450011-60-XXXX	Dipropylene glycol monomethyl ether substance with a Community workplace exposure limit	1 – 2.5%
CAS: 160901-09-7 NLP: 500-446-0 Reg.nr.: 01-2119979533-26-XXXX	Alcohols, C9-11, branched and linear, ethoxylated Eye Irrit. 2, H319; Aquatic Chronic 3, H412	0.1 – 1%

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4 : First Aid Measures

4.1 Description of first aid measures

General information:	Immediately remove any clothing soiled by the product.
After inhalation:	Supply fresh air; consult doctor in case of complaints.
After skin contact:	Immediately wash with water, soap and rinse thoroughly. If skin irritation continues, consult a doctor
After eye contact:	Check for and remove any contact lenses. Rinse opened eye for several minutes under running water.
After swallowing:	Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
Information for doctor:	Treat symptomatically and supportively.

4.2 Most important symptoms and effects, both acute and delayed — No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed — No further relevant information available.

SECTION 5 : Firefighting Measures

5.1 Extinguishing Media :

Suitable Extinguishing Agents:	CO_2, powder or water spray. Fight larger fires with water spray. Use fire extinguishing methods suitable to surrounding conditions.
Unsuitable Extinguishing Media:	Water with full jet

5.2 Special hazards arising from the substance or mixture :

In case of fire, the following can be released:
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)
Phosphorous oxides
Sulphur Oxides (SOx)

5.3 Advice for Firefighters :

Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
Wear fully protective suit.

Additional Information:

Cool endangered receptacles with water spray.
Collect contaminated fire fighting water seperately. It must not enter the sewage system.

SECTION 6 : Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures :

Ensure adequate ventilation.
Particular danger of slipping on leaked/spilled product.
Wear protective equipment.
Keep unprotected persons away.

6.2 Environmental Precautions:

Do not allow to penetrate the ground/soil.
Do not allow to enter sewers / surface or ground water.

6.3 **Methods and material for containment and cleaning up:**

Contain and collect spillage with non-combustible, absorbent material eg sand, earth, vermiculite or diatomaceous earth and place in a container for disposal according to local regulations.
Wash the area with plenty of water.

6.4 **Reference to other sections**

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7 : Handling and Storage

7.1 **Precautions for Safe Handling**

Avoid direct contact (skin/eye contact, ingestion and/or inhalation of fume/mist/dust) with the product in the undiluted form.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

Information about fire - and explosion protection: No special measures required.

7.2 **Conditions for safe storage, including any incompatibilities**
Storage:

Requirements to be met by storerooms and receptacles:

Prevent any seepage into the ground.

Information about storage in one common storage facility:

Store away from oxidising agents.
Store away from metals.
Store away from foodstuffs.

Further information about storage conditions:

Protect from frost.
Store in cool, dry conditions in well sealed receptacles.

Storage class: 12

7.3 **Specific end use(s)**

No further relevant information available.

SECTION 8 : Exposure Controls/Personal Protection

8.1 **Control Parameters**

Ingredients with limit values that require monitoring at the workplace:	
CAS: 107-98-2 1-Methoxy-2-propanol	
WEL	Long-term value: 0.05* mg/m³ *mist: defined as thoracic fraction
CAS: 34590-94-8 Dipropylene glycol monomethyl ether	
WEL	Long-term value: 308 mg/m³, 50 ppm Sk

DNELs		
CAS: 7664-93-9 Sulphuric acid		
Inhalative	Long-term local effects	50 µg/m³ (worker)
	Short-term local effects	100 µg/m³ (worker)

8.1 cont..

CAS: 68308-74-7 Amides, tall-oil fatty, N,N-di-Me		
Oral	Long-term systemic effects	100 µg/kg bw/day (general population)
Dermal	Long-term systemic effects	100 µg/kg bw/day (general population) 200 µg/kg bw/day (worker)
	Long-term local effects	30 µg/kg bw/day (general population) 61 µg/kg bw/day (worker)
	Short-term local effects	30 µg/kg bw/day (general population) 61 µg/kg bw/day (worker)
Inhalative	Long-term systemic effects	150 µg/m³ (general population) 600 µg/m³ (worker)
CAS: 34590-94-8 Dipropylene glycol monomethyl ether		
Oral	Long-term systemic effects	36 mg/kg bw/day (general population)
Dermal	Long-term systemic effects	121 mg/kg bw/day (general population) 283 mg/kg bw/day (worker)
Inhalative	Long-term systemic effects	37.2 mg/m³ (general population) 308 mg/m³ (worker)
CAS: 160901-09-7 Alcohols, C9-11, branched and linear, ethoxylated		
Oral	Long-term systemic effects	3 mg/kg bw/day (general population)
Dermal	Long-term systemic effects	150 mg/kg bw/day (general population) 420 mg/kg bw/day (worker)
Inhalative	Long-term systemic effects	7.84 mg/m³ (general population) 44.4 mg/m³ (worker)

PNECs	
CAS: 68308-74-7 Amides, tall-oil fatty, N,N-di-Me	
Freshwater	6.4 µg/L
Marine water	640 ng/L
Sewage Treatment Plant	100 mg/L
Sediment (freshwater)	273.3 mg/kg
Sediment (marine water)	27.33 mg/kg
Soil	54.64 mg/kg
Secondary poisoning	66.667 mg/kg food
CAS: 34590-94-8 Dipropylene glycol monomethyl ether	
Freshwater	19 mg/L
Freshwater - Intermittent releases	190 mg/L
Marine water	1.9 mg/L
Sewage Treatment Plant	4,168 mg/L
Sediment (freshwater)	70.2 mg/kg
Sediment (marine water)	7.02 mg/kg
Soil	2.74 mg/kg
CAS: 160901-09-7 Alcohols, C9-11, branched and linear, ethoxylated	
Freshwater	10.7 µg/L
Freshwater - Intermittent releases	19.5 µg/L
Marine water	1.07 µg/L
Marine Water - Intermittent releases	1.95 µg/L
Sewage Treatment Plant	10 mg/L
Sediment (freshwater)	73.9 µg/kg
Sediment (marine water)	7.39 µg/kg
Soil	8.6 µg/kg

Additional information: The lists valid during the making were used as basis.

8.2 **Exposure controls**

Appropriate engineering controls:	No further data; see section 7.
Personal protective equipment:	
General protective and hygienic measures:	The usual precaultionary measures are to be adhered to when handling chemicals. Do not eat, drink while working. Take note of assigned Workplace Exposure Limits. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Ensure that eyewash stations and safety showers are close to the workstation location.
Respiratory protection:	Use suitable respiratory protective device in case of insufficient ventilation..
Protection of hands:	Protective gloves - Use gloves tested and approved under appropriate government standards such as NIOSH (US) or EN374 (EU)

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves :
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye/Face Protection
Safety glasses with side-shields conforming to EN166.
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)

Body protection:
Impervious protective clothing.
Body protection must be chosen depending on product properties, activity and possible exposure.

Environmental exposure controls
Do not allow to enter the drains, sewers or watercourses.

Risk management measures
The operators shall be instructed adequately.

SECTION 9 : Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

General Information	
Physical state:	Liquid
Colour:	Light Brown
Odour:	Mild
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.
Flammability:	Not applicable.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
pH-value at 20°C:	4-6
Viscocity:	
Kinematic viscocity:	Not determined.
Dynamic:	Not determined.
Solubility:	
Water:	Fully miscible.
Partition coefficient n-octanol/water (log value):	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density	
Density at 20°C:	1.024 g/cm³
Relative density:	Not determined.
Vapour density:	Not detrmined.

9.2 Other Information:

NOTE: The physical data presented above are typical values and should not be construed as a specification.

Appearance:
Form: Fluid.

Important information on protection of health and environmen and on safety.

Ignition temperature:	Product is not self igniting.
Explosive properties:	Product does not present an explosion hazard.

Solvent content
VOC (EC) 1.54%

Change in condition
Evaporation rate: Not determined.

Information with regard to physical hazard classes

Explosives:	Void
Flammable gases:	Void
Aerosols:	Void
Oxidising gases:	Void
Gases under pressure:	Void
Flammable liquids:	Void

9.2 cont..

Flammable solids:	Void
Self-reactive substances and mixtures:	Void
Pyrophoric liquids:	Void
Pyrophoric solids:	Void
Self heating substances and mixtures:	Void
Substances and mixture, which emit flammable gases in contact with water:	Void
Oxidising liquids:	Void
Oxidising solids:	Void
Organic peroxides:	Void
Corrosive to metals:	Void
Desensitised explosives:	Void

SECTION 10 : Stability and Reactivity

10.1 **Reactivity** — No further relevant information available.

10.2 **Chemical stability Thermal decomposition / conditions to be avoided:** — No decomposition if used and stored according to specifications.

10.3 **Possibility of hazardous reactions:** — No dangerous reactions known.

10.4 **Conditions to avoid:** — Heat and static discharge.

10.5 **Incompatible materials:** — Finely powdered metals.
Strong oxidising agents.

10.6 **Hazardous decomposition products:** — Phosphorous compounds.
Carbon Monoxide and Carbon Dioxide
Nitrogen Oxides (NOx)
Sulphur Oxides (SOx)

SECTION 11 : Toxicological Information

11.1 Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not met

LD/LC50 values relevant for classification:		
ATE (Acute Toxicity Estimates)		
Oral	LD50	14,354 – 95,694 mg/kg (rat)
CAS: 7664-93-9 Sulphuric acid		
Oral	LD50	2,140 mg/kg (rat)
CAS: 78330-20-8 Alcohols, C9-11-iso-, C10-rich, ethoxylated		
Oral Dermal	LD50 LD50	300 – 2,000 mg/kg (rat) > 2,000 mg/kg (rat)
CAS: 68308-74-7 Amides, tall-oil fatty, N,N-di-Me		
Oral	LD50	> 5,000 mg/kg (rat)
CAS: 34590-94-8 Dipropylene glycol monomethyl ether		
Oral Dermal	LD50 LD50	> 5,000 mg/kg (rat) > 5,000 mg/kg (rab)

Primary irritant effect:
Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/irritation: Based on available data, the classification criteria are not met.

11.1 cont..
Respiratory or skin sensitisation: May cause an allergic skin reaction.
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.
STOT-single exposure: Based on available data, the classification criteria are not met.
STOT-repeated exposure: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.
Subacute to chronic toxicity: Prolonged or repeated skin contact may irritate and cause dermatitis.
Additional toxicological information: Repeated or prolonged skin contact may induce sensitisation.

11.2 **Information in other hazards**

Endocrine disrupting properties: None of the ingredients are listed.

SECTION 12 : Ecological Information

12.1 **Toxicity**

Aquatic toxicity:	
CAS: 7664-93-9 Sulphuric acid	
EC50 (96 h) EC50 (72 h)	16 mg/l (Fish) > 100 mg/l (Daphnia)
CAS: 78330-20-8 Alcohols, C9-11-iso-, C10-rich, ethoxylated	
EC50 (96 h)	10 – 100 mg/l (Bacteria)
CAS: 68308-74-7 Amides, tall-oil fatty, N,N-di-Me	
EC50 (72 h) EC50 (3 h)	32 mg/l (algae) 1,000 mg/L (microorganisms)
CAS: 34590-94-8 Dipropylene glycol monomethyl ether	
EC50 (96 h)	> 1,000 mg/l (Bacteria)

12.2 **Persistence and degradability** The organic portion of the product is biodegradable

12.3 **Bioaccumulative potential** Contains components with the potential to bioaccumulate.

12.4 **Mobility in soil** No further relevant information available.

12.5 **Results of PBT and vPvB assessment**
PBT: Not applicable.
vPvB: Not applicable.

12.6 **Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

12.7 **Other adverse effects**

Additional ecological information:
General notes: Water hazard class 3 (German Regulation)
(Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.

SECTION 13 : Disposal Considerations

13.1 **Waste treatment methods**

Recommendation

Recommended Hierarchy of Controls:
Minimize waste;
Reuse if not contaminated;
Recycle, if possible; or
Safe disposal (if all else fails).
Must not be disposed together with household waste.
Do not allow product to reach sewage system.
Contact waste processors for recycling information.
Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

Uncleaned packaging:

Recommendation:

Empty contaminated packagings thoroughly.
They may be recycled after thorough and proper cleaning.
Disposal must be made according to official regulations.
Containers even those that are “empty” may contain residues that can develop flammable and/or hazardous vapours upon heating.
Do not cut, drill, grind, weld or perform similar operations on or near empty containers.

Recommended cleansing agents:

Water, if necessary together with cleansing agents.

SECTION 14 : Transport Information

14.1	**UN-Number**	
	ADR/RID/ADN, ADN,IMDG, IATA	Not applicable
14.2	**UN proper shipping name**	
	ADR/RID/ADN, ADN,IMDG, IATA	Not applicable
14.3	**Transport hazard class(es)**	
	ADR/RID/ADN, ADN,IMDG, IATA	
	Class	Not applicable
14.4	**Packing group**	
	ADR/RID/ADN, IMDG, IATA	Not applicable
14.5	**Environmental hazards:**	
	Marine pollutant:	No
14.6	**Special precautions for user**	Not applicable
14.7	**Maritime transport in bulk according to IMO instruments**	Not applicable
	Transport/Additional information	Not dangerous according to the above specifications
	UN “Model Regulation”	Not applicable

SECTION 15 : Regulatory Information

15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**
Poisons Act

Regulated explosives precursors		
CAS: 7664-93-9	Sulphuric acid	15%
CAS: 7664-38-2	Phosphoric acid	30%
Regulated poisons		
None of the ingredients are listed.		
Reportable explosives precursors		
None of the ingredients are listed.		
Reportable poisons		
None of the ingredients are listed.		

Control Of Major Accident Hazards Regulations 2015 (COMAH)
Named dangerous substances - ANNEX I None of the ingredients are listed.

15.2 **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16 : Other Information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

Relevant phrases
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Training hints
This product should only be handled by workers who have received sufficient training in the safe handling and use of chemical products.

Department issuing SDS: Product safety department.

Abbreviations and acronyms:
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (UK REACH)
PNEC: Predicted No-Effect Concentration (UK REACH)

16 cont..

LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1B: Skin sensitisation – Category 1B
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3