

# SAFETY DATA SHEET

## APPLIED CIRCULATE GK

Infosafe No.: 5APEY  
ISSUED Date : 29/08/2017  
ISSUED by: ITW POLYMERS & FLUIDS

### 1. IDENTIFICATION

---

**GHS Product Identifier**

APPLIED CIRCULATE GK

**Product Code**

A5721

**Company Name**

ITW POLYMERS & FLUIDS (ABN 63 004 235 063)

**Address**

100 Hassall Street Wetherill Park  
NSW 2164 Australia

**Telephone/Fax Number**

Tel: 1800 063 511; +61 2 9757 8800

Fax: 1800 803 596; +61 2 9757 3855

**Emergency phone number**

1800 385 556 / 0438 465 960

**E-mail Address**

info@itwpcf.com.au

**Recommended use of the chemical and restrictions on use**

Alkaline CIP cleaner

**Disclaimer**

\*

**Websites:**

www.itwpcf.com.au

\*

**Fluid Chemicals NZ**

5A Andrew Baxter Drive, Airport Oaks, Auckland, 2150

Postal Address: P.O. Box 201185 , Auckland Airport, 2150, New Zealand

EMERGENCY TEL: 0800 154 666

### 2. HAZARD IDENTIFICATION

---

**GHS classification of the substance/mixture**

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.

Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2012 Transport of Dangerous Goods on Land.

Acute Toxicity - Oral: Category 4

Skin Corrosion/Irritation: Category 1B

**Signal Word (s)**

DANGER

**Hazard Statement (s)**

Harmful if swallowed.

Causes severe skin burns and eye damage.

**Pictogram (s)**

Corrosion, Exclamation mark

**Precautionary statement – Prevention**

Do not breathe dust/fume/gas/mist/vapours/spray.

Wash contaminated skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary statement – Response**

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Call a POISON CENTER or doctor/physician if you feel unwell.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash contaminated clothing before reuse.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Precautionary statement – Storage**

Store locked up.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Ingredients**

Name	CAS	Proportion
Ingredients not considered hazardous	-	Balance
Potassium hydroxide	1310-58-3	30-60 %

**4. FIRST-AID MEASURES****Inhalation**

For all but the most minor symptoms arrange for patient to be seen by a doctor as soon as possible - either on site or at the nearest hospital.

Remove victim from exposure - avoid becoming a casualty.

Investigate possible misuse of material.

**Ingestion**

Rinse mouth thoroughly with water immediately.

Give water to drink. DO NOT induce vomiting.

If vomiting occurs give further water to achieve effective dilution.

Seek immediate medical assistance.

**Skin**

If swelling, redness, blistering or irritation occurs seek medical advice.

Remove any source of further contamination (such as contaminated clothing). Flush the affected area with water as soon as possible.

Continue to flush until:

All of the substance is removed AND signs and symptoms have gone away. Do NOT scrub the skin roughly. Do NOT use any solvent

(e.g. soap, acetone, alcohol). Seek medical advice.

IF THE SKIN LOOKS BURNED: Treat the skin the same as a thermal (heat) burn:

Clean the skin gently with cool water. Apply a cold compress. Do NOT apply ice to hands or feet as this may cut off circulation

If after initial treatment, the skin is very painful or a large area is affected, transport victim to a hospital or medical centre without further delay.

#### **Eye contact**

Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open.

Urgently seek medical assistance. Transport to hospital or medical centre.

#### **Advice to Doctor**

Can cause corneal burns.

Delayed pulmonary oedema may result.

Treat symptomatically as for strong alkalis.

## **5. FIRE-FIGHTING MEASURES**

---

#### **Suitable Extinguishing Media**

In case of fire, appropriate extinguishing media include water fog, or if unavailable, fine water spray, foam, dry agent such as dry chemical or carbon dioxide. Do not spray water directly onto the material. Keep containers cool with water spray. If safe to do so, move containers from the path of fire. Extinguish flames from safe distance.

#### **Hazards from Combustion Products**

Non-combustible. Incompatible with strong oxidising agents, acids, ammonium salts, chlorinated hydrocarbons, water, many metals, alcohol, aluminium, glass, metal, sugar, tin, zinc and sources of ignition. On thermal decomposition, poisonous corrosive potassium oxides may develop. Contact with metals may produce extremely flammable hydrogen gas.

#### **Special Protective Equipment for fire fighters**

Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit.

#### **Specific Methods**

Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk. Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.

#### **Specific Hazards Arising From The Chemical**

The product is strongly alkaline and hence may react with some metals to produce hydrogen, a flammable gas.

#### **Hazchem Code**

2R

## **6. ACCIDENTAL RELEASE MEASURES**

---

#### **Emergency Procedures**

Personnel involved in the clean up should wear full protective clothing. Avoid accidents, clean up immediately. Evacuate all unnecessary personnel. Increase ventilation. Avoid walking through spilled product as it is slippery when spilt. Stop leak if safe to do so. Isolate the danger area.

Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management.

#### **Methods And Materials For Containment And Cleaning Up**

Use absorbent (soil or sand, sawdust, inert material, vermiculite). Transfer to suitable, labelled, corrosion resistant containers and dispose of promptly as hazardous waste. Neutralize the remaining leakage with dilute acid.

## **7. HANDLING AND STORAGE**

---

#### **Precautions for Safe Handling**

Always wash hands before smoking, eating, drinking or using the toilet.

Remove contaminated clothing and wash before re-use.

#### **Conditions for safe storage, including any incompatibilities**

Store in a cool, dry place away from direct heat and sunlight.

Store away from acids and oxidising agents.

Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage.

#### Storage Regulations

This product is a S6 poison and must be stored according to relevant regulations. This product is classified as a Class 8 Corrosive Alkali and must be stored and handled according to relevant regulations. Product must remain labelled until container completely decontaminated.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

---

#### Occupational exposure limit values

Substance	Regulations	Exposure Duration	Exposure Limit	Units	Notes
Potassium hydroxide		TWA	2	mg/m <sup>3</sup>	

#### Biological Limit Values

No biological limit values allocated.

#### Appropriate Engineering Controls

Maintain concentration below recommended exposure limit.

Use with adequate ventilation.

Avoid generation and inhalation of mists or aerosols.

#### Respiratory Protection

If risk of inhalation of spray mist exists, wear combined organic vapour/particulate respirator. If using a respirator' ensure that the cartridges are correct for the potential air contamination and are in good working order.

#### Eye Protection

Faceshield. Chemical goggles.

#### Hand Protection

PVC, nitrile, neoprene & natural rubber gloves. Inspect gloves regularly and discard as soon as any degradation is apparent. PVA gloves are NOT recommended.

#### Footwear

Rubber boots

#### Body Protection

Splash apron. Impervious overalls or similar apparel.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

---

#### Appearance

Amber coloured mobile liquid.

Soluble in water to produce foaming solutions.

#### Melting Point

<0°C

#### Boiling Point

approx 120°C

#### Specific Gravity

1.323 at 20°C

#### pH

pH neat 13.5 - 14.5

#### Vapour Pressure

18 mm Hg at 20°C

#### Flash Point

Non flammable

**Flammability**

Non combustible. Non flammable.

**Flammable Limits - Lower**

Not Required

## 10. STABILITY AND REACTIVITY

---

**Chemical Stability**

Product is stable under normal conditions of use, storage and temperature.

**Conditions to Avoid**

Avoid excessive heat, moisture, light and water, and high temperatures.

**Incompatible materials**

Incompatible with oxidizing agents, acids, ammonium salts, chlorinated hydrocarbons, water, many metals, alcohol, aluminium, glass, metal, sugar, tin, and zinc.

**Hazardous Decomposition Products**

On thermal decomposition, poisonous corrosive potassium oxides may develop. Contact with metals may produce extremely flammable hydrogen gas.

**Possibility of hazardous reactions**

The solution in water is a strong base, it reacts violently with acid and is corrosive to aluminium and zinc. Attacks many metals forming combustible gas (hydrogen).

## 11. TOXICOLOGICAL INFORMATION

---

**Ingestion**

Ingestion can result in nausea, vomiting, diarrhoea, abdominal pain, and/or convulsions.

Can kill if swallowed.

May cause severe burns to the mouth, throat and stomach.

May lead to CNS depression.

Will cause severe damage to the mucous membranes.

**Inhalation**

Harmful by inhalation.

Inhalation of mists or aerosols can produce respiratory irritation.

May cause bronchitis, pneumonia and pulmonary oedema.

May induce a burning sensation in the chest.

Not considered a feature of normal use.

**Skin**

Causes severe burns.

**Eye**

A severe eye irritant.

Corrosive to eyes; contact can cause corneal burns.

Permanent eye damage, including loss of sight, may occur.

## 12. ECOLOGICAL INFORMATION

---

**Ecotoxicity**

This product is expected to be harmful to the environment in high concentrations due to its alkalinity.

**Persistence and degradability**

Main constituent, potassium hydroxide, is inorganic. Biodegradability tests are not applicable.

**Mobility**

Soluble in water.

**Environmental Protection**

This substance may be hazardous to the environment; special attention should be given to ensuring adequate dilution to reduce the concentration

of alkaline salts.

### 13. DISPOSAL CONSIDERATIONS

---

#### Waste Disposal

Neutralise waste water with dilute acid to a pH range of 6-10.  
Consult local trade waste regulations before discharging to sewer.

#### Container Disposal

Keep container labelled until cleaned and then remove or deface labels.

### 14. TRANSPORT INFORMATION

---

#### Transport Information

Dangerous Goods of Class 8 Corrosives are incompatible in a placard load with any of the following: - Class 1, Class 4.3, Class 5, Class 6, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids and Class 7.

#### U.N. Number

1719

#### UN proper shipping name

CAUSTIC ALKALI LIQUID, N.O.S.( CONTAINS POTASSIUM HYDROXIDE)

#### Transport hazard class(es)

8

#### Packing Group

II

#### Hazchem Code

2R

#### IERG Number

37

#### IMDG UN No

1719

#### IMDG Hazard Class

8

#### IMDG Pack. Group

II

#### IMDG EMS

F-A, S-B

### 15. REGULATORY INFORMATION

---

#### Regulatory information

Hazardous according to criteria of NOHSC Australia.

#### Poisons Schedule

S6

#### Australia (AICS)

All ingredients listed

### 16. OTHER INFORMATION

---

#### Date of preparation or last revision of SDS

Replaces SDS dated 19/2/2013

#### References

Australian Code for the Transport of Dangerous Goods by Road and Rail.  
International Maritime Dangerous Goods Code.

International Air Transport Association Dangerous Goods Regulations.  
Globally Harmonised System of Classification and Labelling of Chemicals,ST/SG/AC.10/30, United Nations 2003  
Supplier Safety Data Sheets

**Contact Person/Point**

This Safety Data Sheet summarises at the date of issue to the best of our knowledge, the health and safety hazards of the product and how to safely handle and use the product.

As ITW Polymers & Fluids cannot anticipate or control the conditions under which the product is used, customers are encouraged, prior to usage, to assess and control the risks associated with their use of the product.

Data sheets from unauthorised sources may contain information that is no longer current or accurate.

This SDS is valid for 5 years from date of issue. However, this version may be revoked and revised at any time, and users should contact ITW Polymers & Fluids to ensure they are in possession of the latest version.

**Signature of Preparer/Data Service**

AMS

**END OF SDS**

© Copyright Chemical Safety International Pty Ltd

Copyright in the source code of the HTML, PDF, XML, XFO and any other electronic files rendered by an Infosafe system for Infosafe SDS displayed is the intellectual property of Chemical Safety International Pty Ltd.

Copyright in the layout, presentation and appearance of each Infosafe SDS displayed is the intellectual property of Chemical Safety International Pty Ltd.

The compilation of SDS's displayed is the intellectual property of Chemical Safety International Pty Ltd.

Copying of any SDS displayed is permitted for personal use only and otherwise is not permitted. In particular the SDS's displayed cannot be copied for the purpose of sale or licence or for inclusion as part of a collection of SDS without the express written consent of Chemical Safety International Pty Ltd.