SAFETY DATA SHEET



T&G POWER

APPLIED PRODUCTS AUSTRALIA PTYLTD

Catalogue number: **AP163** Version No: **1.5** Issue date: **09/11/2016**

Safety Data Sheet according to WHS and ADG requirements

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	T&G POWER
Synonyms	AP163
Proper shipping name	CORROSIVE LIQUID, N.O.S. (contains potassium hydroxide)
Other means of identification	Not Available

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

Details of the manufacturer/importer

Registered company name	APPLIED PRODUCTS AUSTRALIA PTY LTD
Address	11 Gamma Close, Beresfield 2322 NSW Australia
Telephone	(02) 4966 5516
Fax	(02) 4966 5510
Website	www.actichem.com.au
Email	info@actichem.com.au

Emergency telephone number

Association	on / Organisation	Poisons Information Centre
Emer	gency telephone numbers	13 1126
Other emer	gency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

 ${\sf HAZARDOUS\ CHEMICAL.\ DANGEROUS\ GOODS.\ According\ to\ the\ Model\ WHS\ Regulations\ and\ the\ ADG\ Code.}$

Poisons Schedule 6	
GHS Classification [1] Serious Eye Damage Category 1, Skin Corrosion/Irritation Category 1B, Metal Corrosion Category 1	
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI

Label elements

GHS label elements



Hazard statement(s)

H318	Causes serious eye damage
H314	Causes severe skin burns and eye damage
H290	May be corrosive to metals

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Precautionary statement(s) Prevention

P260	Do not breathe mist / vapours / spray.	
P262	Do not get in eyes, on skin or on clothing.	
P280	Wear protective gloves / protective clothing / eye protection / face. protection	
P234	Keep only in original container.	

Precautionary statement(s) Response

P301+P310+P330+P331	IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce. vomiting	
P303+P310+P361+P353	ON SKIN (or hair): Immediately call a POISON CENTER or doctor. Take off immediately all contaminated clothing. Rinse skin with water/shower.	
P305+P310+P351+P338	FIN EYES: Immediately call a POISON CENTER or doctor. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. continue rinsing.	
P304+P340	IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.	
P363	P363 Wash contaminated clothing before reuse.	
P390	P390 Absorb spillage to prevent material damage.	

Precautionary statement(s) Storage

P405 Store locked up

Precautionary statement(s) Disposal

P501

Dispose of contents / container in accordance with local regulations

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
1310-58-3	10 <30	potassium hydroxide
141-43-5	<10	monoethanolamine

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing, including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. Transport to hospital, or doctor.
Inhalation	If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR necessary. Transport to hospital, or doctor, without delay.
For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay.	

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Indication of any immediate medical attention and special treatment needed

For acute or short-term repeated exposures to highly alkaline materials:

Respiratory stress is uncommon but present occasionally because of soft tissue edema.

Alkalis continue to cause damage after exposure

INGESTION:

Milk and water are the preferred diluents.

No more than 2 glasses of water should be given to an adult.

Neutralising agents should never be given since exothermic heat reaction may compound injury.

Catharsis and emesis are absolutely contra-indicated.

Activated charcoal does not absorb alkali.

Gastric lavage should not be used.

EYE INJURY

Injury should be irrigated for 20-30 minutes.

Eye injuries require saline. [Ellenhorn & Barceloux: Medical Toxicology]

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

Extinguishing media

Water spray or fog. Foam.

Dry chemical powder.

BCF (where regulations permit).

Carbon dioxide

Special hazards arising from the substrate or mixture

Fire incompatibility

None known

Advice for firefighters

Advice for firefighters		
Fire Fighting	Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use firefighting procedures suitable for surrounding area. Do not approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.	
Fire/Explosion Hazard	Nonc ombustible. Not considered a significant fire risk, however containers may burn. May emit corrosive fumes.	
HAZCHEM	2X	

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills	Flush away with copious amounts of water.	
Major Spills	Wear full body protective clothing with breathing apparatus. Absorb on sand, dirt, vermiculite or similar absorbent material. Place into labeled drums and dispose of according to local government regulations. Immediately notify emergency services (Police or Fire Brigade) if the spill is too large for you to safely and effectively handle.	
	Personal protective equipment advice is contained in Section 8 of this SDS	

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling.
Other information	Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks Observe manufacturer's storage and handling recommendations contained within this SDS. DO NOT store near acids or oxidising agents. No smoking, naked lights, heat or ignition sources.

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Conditions for safe storage, including any incompatibilities

Plastic pail.

Suitable container Packing as recommended by manufacturer.

Check all containers are clearly labelled and free from leaks.

Storage incompatibility Avoid contact with acids and oxidising agents

PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	potassium hydroxide	Potassium hydroxide	Not Available	Not Available	2 mg/m3	Not Available
Australia Exposure Standards	monoethanolamine	Ethanolamine	7.5 mg/m3 / 3 ppm	15 mg/m3 / 6 ppm	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
potassium hydroxide	Potassium hydroxide	0.18 mg/m3	2 mg/m3	54 mg/m3
monoethanolamine	Ethanolamine	6 ppm	6 ppm	1000 ppm

Ingredient	Original IDLH	Revised IDLH
potassium hydroxide	Not Available	Not Available
monoethanolamine	1,000 ppm	30 ppm

Exposure controls

Appropriate engineering controls	Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate. If ventilation is poor, then the use of a local exhaust ventilation system is recommended.
Personal protection	
Eye and face protection	Safety glasses with unperforated side shields may be used where continuous eye protection is desirable. Chemical goggles .whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted. Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes; these afforded face protection. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.
Skin protection	See Hand protection below
Hands/feet protection	Elbow length PVC gloves When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.
Body protection	See Other protection below
Other protection	Overalls. PVC Apron. Eyewash unit. Ensure there is ready access to a safety shower.
Thermal hazards	Not Available

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Clear dark tan liquid		
Physical state	Liquid	Relative density (Water = 1)	1.22
Odour	Not Available	Viscosity (cSt)	Not Available
Odour threshold	Not Available	Auto-ignition temperature(°C)	Not Available
pH (as supplied)	14	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Applicable	Partition coefficient n-octanol / water	
Initial boiling point and boiling range (°C)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Molecular weight (g/mol)	Not Available
Lower Explosive Limit(%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

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SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.
Ingestion	Ingestion of alkaline corrosives may produce burns around the mouth, ulcerations and swellings of the mucous membranes, profuse saliva production, with an inability to speak or swallow. Both the oesophagus and stomach may experience burning pain; vomiting and diarrhea may follow.
Skin Contact	The material can produce severe chemical burns following direct contact with the skin. Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Potassium hydroxide burns are not immediately painful; onset of pain may be delayed minutes or hours; thus care should be taken to avoid contamination of gloves and boots.
Еуе	If applied to the eyes, this material causes severe eye damage. Direct eye contact with corrosive bases can cause pain and bums. There may be swelling, epithelium destruction, clouding of the comea and inflammation of the iris. Mild cases often resolve; severe cases can be prolonged with complications such as persistent swelling, scarring, permanent cloudiness, bulging of the eye, cataracts, eyelids glued to the eyeball and blindness.
Chronic	Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

On the basis of available evidence concerning either toxicity, persistence, potential to accumulate and or observed environmental fate and behavior, the material may present a danger, immediate or long-term and /or delayed, to the structure and/ or functioning of natural ecosystems.

Prevent, by any means available, spillage from entering drains or water courses.

DO NOT discharge into sewer or waterways

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
monoethanolamine	LOW	LOW

Bio accumulative potential

Ingredient	Bioaccumulation
monoethanolamine	LOW (LogKOW = -1.31)

Mobility in soil

Ingredient	Mobility
monoethanolamine	HIGH (KOC = 1)

SECTION 13 DISPOSAL CONSIDERATIONS

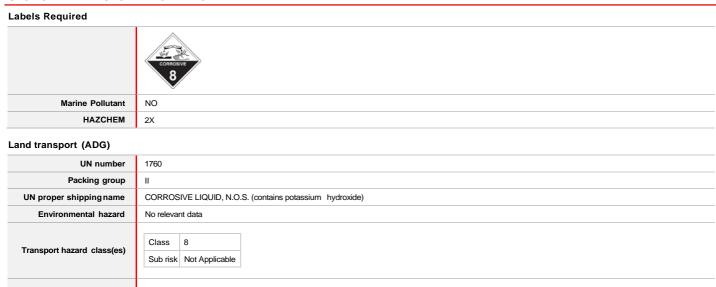
Waste treatment methods

Product / packaging disposal Product residues and containers should be disposed of in accordance with local government regulations	Product / packaging disposal	Recycle containers whenever possible. Product residues and containers should be disposed of in accordance with local government regulations
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SECTION 14 TRANSPORT INFORMATION



SECTION 15 REGULATORY INFORMATION

Special precautions for user

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

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1 L

Special provisions

Limited quantities

potassium hydroxide (1310-58-3) is found on the following regulatory lists	'Australia Exposure Standards', 'Australia Inventory of Chemical Substances (AICS)', 'Australia Hazardous Substances Information System - Consolidated Lists'
Monoethanolamine (141-43-5) is found on the following regulatory lists	'Australia Exposure Standards', 'Australia Inventory of Chemical Substances (AICS)', 'Australia Hazardous Substances Information System - Consolidated Lists'

SECTION 16 OTHER INFORMATION

Other information

BEI:

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references

A list of reference resources used to assist the committee may be found at: www.chemwatch.net

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average PC-STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Government Industrial Hygienists

Short Term Exposure Limit TEEL:

Temporary Emergency Exposure Limit Immediate Danger to Life or Health Concentrations IDLH:

Biological Exposure Index

OSF: Odour Safety Factor NOAEL: Threshold Limit Value Limit Of Detection Odour Threshold Value LOD: OTV: Bio Concentration Factors

No Observed Effects Level

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