

TENNANTS DISTRIBUTION LIMITED

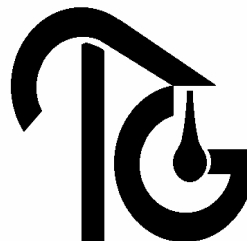
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PRODUCT DATA SHEET

(This booklet incorporates the Specification and M.S.D.S.)

PRODUCT POTASSIUM HYDROXIDE FLAKE		
CAS NO.	1310-58-3	
TARIFF NO.	281520100	
U.N NO.	8/1813	
EINECS NO.	215-181-3	
IMCO CLASS	8 CORROSIVE	
HAZARDS	CORROSIVE	
SPECIFICATION REFERENCE	7620-025	DATE OCT 05
REFERENCE NO.	POHY/5	DATE OCT 05
PREVIOUS EDITION.	POHY/4	DATE MAY 03

PRODUCT SPECIFICATION			
Product Name	Potassium Hydroxide Flake		
Alternative Name	Caustic Potash		
Product Grade			
SPECIFICATION			
	Specification	Average Analysis	Test Method
% KOH	≥89.5	90.3	Acidimetry
% K ₂ CO ₃	≤1	0.15	Acidimetry
% Na	≤0.85	0.40	Emission Flame
mg/kg Cl	≤20	5.7	Mercurimetry
mg/kg Fe	<5	1 – 3	Ferric Thiocyanate
mg/kg SiO ₂	10 - 20		
mg/kg KClO ₃		<1	
mg/kg K ₂ SO ₄		<1	
mg/kg Al		<2	
mg/kg Ni		4	
mg/kg Zn		<0.5	
mg/kg Pb		<0.2	
mg/kg Mo		0.3	
mg/kg Cu		<0.10	
mg/kg Cr		<0.02	
mg/kg Mn		<0.05	
mg/kg Co		<0.02	
mg/kg As		0.5	
mg/kg Hg		0.01	
mg/kg PO ₄		15 – 20	
mg/kg F		<2	
General Properties		Chemical Formula	KOH
		Molecular Weight	56.11
		Description	Anhydrous, white solid prone to hydration and carbonation on exposure to air. Material is free from any animal and transgenic vegetable origin
Physical Properties		Apparent Density at 20°C	
		Melting Point Temperature	0.9°C
		Boiling Point Temperature	200°C
		Specific Heat at 25°C	370°C
		Specific Heat at 20°C of aqueous solutions	0.24 Kcal/kg
KOH %	KOH en g/l	Specific Gravity at 20°C en g/cm³	Viscosity in CPo
21.4	256.66	1.200	1.6
30.2	389.2	1.290	2.35
40.3	564.3	1.400	3.6
50.0	756.0	1.512	8.0
NOTES			
Exclusion of Liability			
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Health and Safety			
A Material Safety Data Sheet has been issued describing the health, safety and environmental properties of this product, identifying the potential hazards and giving advice on the handling precautions and emergency procedures. This must be consulted fully before handling, storage and use.			

SAFETY DATA SHEET**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY**

Product:	Potassium Hydroxide Flake		
COMPANY:	TENNANTS DISTRIBUTION LIMITED		
	Hazelbottom Road	Botany Way	
	Cheetham	Purfleet	
	Manchester	Essex	
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	Emergency Tel No.	01865 407333	

2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No.:	131-058-3
EINECS No.:	215-181-3

3. HAZARDS IDENTIFICATION

Main Hazards	Corrosive
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4. FIRST AID MEASURES

SPEED IS ESSENTIAL OBTAIN IMMEDIATE MEDICAL ATTENTION	
First Aid - Eyes	Irrigate with eyewash solution or clean water, holding the eyelids for at least 10 minutes. Continue irrigation until medical attention can be obtained
First Aid - Inhalation	Remove patient from exposure, keep warm and at rest. Consult a doctor
First Aid - Skin	Remove contaminated clothing. Wash skin with soap and water
First Aid - Ingestion	Do not induce vomiting. Give water or milk to drink.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Water
Special Hazards of Product	Non-combustible.
Protective Equipment for Fire Fighting	Protective clothing and self contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

Spillages	A small spillage can be swilled away with cold water taking care to avoid splashing. In the event of a large spillage the liquor should be soaked up by large quantities of sand or earth. Solid material should be carefully swept up and placed in a secure container for disposal
Environmental	Contain and control the spillage on site

7. HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes.
Storage	Should be stored in cool and dry conditions in tightly closed container Storage area should be well ventilated in order to keep concentration below the OEL

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standard	LTEL	8 hr TWA	STEL	Time
	ppm	mg/m ³	ppm	mg/m ³
	-	-	2	-
				10 OES
Personal Protection	Wear suitable protective clothing, gloves and eye/face protection. PVC is resistant to this substance. Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely.			

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Milky White Flake
Odour	Odourless
pH	14 at 20°C 100g/l
Melting point	320°C
Boiling Point	1320°C
Flash Point	
Vapour Pressure	
Vapour Density	
Relative Density (SG)	2.12
Solubility in water	111% wt. at 20°C

10. STABILITY AND REACTIVITY	
Stability	Stable under normal conditions - reacts with water to give heat
Conditions to Avoid	Keep away from water, acids, ammonium salts, flammable liquids, flammable solids, spontaneously combustible substances and oxidising substances.
Materials to Avoid	Reacts violently with acids and attacks aluminium, zinc and tin
Hazardous Decomposition Products	Hydrogen will evolve in contact with aluminium, magnesium, zinc and tin
11. TOXICOLOGICAL INFORMATION	
Inhalation	Mist may cause damage of the upper respiratory tract and even to the lung tissue proper depending on the severity of exposure. Effect may vary from mild irritation of the mucous membranes of the nose to severe lung irritation
Skin Contact	A primary irritant that very rapidly destroys the tissue causing burns which are slow to heal and leave a scar.
Eye Contact	Can cause severe damage with possible formation of corneal ulcers and permanently impaired or even loss of vision
Ingestion	Causes severe damage to the mucous membranes or deeper tissue of the mouth, throat, oesophagus and stomach and death may result from any subsequent penetration into vital area.
Long Term Exposure	Acute effects predominate
12. ECOLOGICAL INFORMATION	
Biodegradability	Stable - causes no biological oxygen consumption
Aquatic Toxicity	Fish toxicity LD50 189 mg/l Toxic effect on fish and plankton, also through shifting of pH
Other	Skin - rabbit 50mg/24 H SEV
	Eye - monkey 1%/24 H SEV
	Eye - rabbit 1% SEV
	Eye - rabbit 1mg/24 H SEV
	LD50 (ipr-liquid) 2mg/m
No inhibition of the activity of sewage water bacteria after neutralisation. Water pollutant danger class: low impairment of water quality.	
13. DISPOSAL CONSIDERATIONS	
Disposal should be in accordance with local and national legislation. Waste disposal must be by an accredited contractor	
14. TRANSPORT INFORMATION	
Packaging	In bags or drums
Transport Classification	Corrosive
ID Number	1813
Shipping Name	Potassium Hydroxide (Caustic Potash)
ICAO/IATA/IMDG Class	kl.8,1813
Subsidiary Risk	n/a
Packing Group	II
ADR Class	8 Item No. 41 (b)
Hazard ID Number	1813
RID/ADR ID No.	80
Emergency Action Code	FA1 SP18 SHH3-517
Other	Kemler Code 80/1813
15. REGULATORY INFORMATION	
EEC Classification	Corrosive
Hazard Symbols	C
R phrases	R22: Harmful if swallowed R35: Causes Severe burns
S phrases	S2: Keep out of reach of children S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical attention S27: Take off immediately all contaminated clothing S37/39: Wear suitable gloves and eye/face protection
16. OTHER INFORMATION	
The Specification has been revised. The Safety Data Sheets remain the same	
Revision Date: 27/10/05	