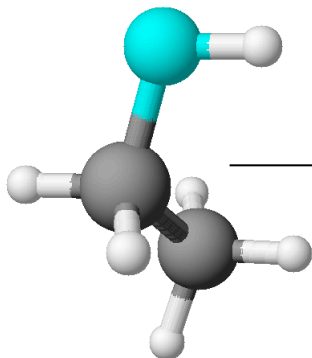


ETHANOL PRODUCERS ASSOCIATION
OF SOUTH AFRICA

OVERVIEW of the NON-IBSA BIOETHANOL
SPECIFICATIONS & STANDARDS

REGIONAL PERSPECTIVE : S A D C

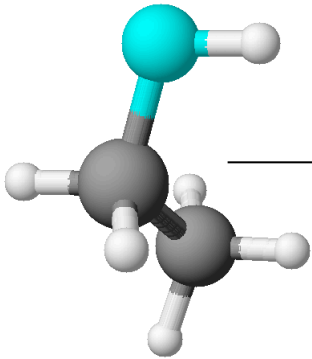
2 December 2010



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MEMBERS & CAPACITIES

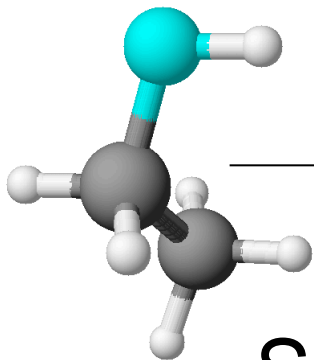
MEMBER	CAPACITY kl /a	SOURCE
Glendale Distilling Co	5 000	Ferment- ation
Greenpoint Alcohols	3 000	
Illovo Sugar - Merebank	50 000	
NCP Alcohols	55 000	
Sasol Solvents	275 000	Synthetic
TOTAL	388 000	kl/a



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EPASA - DISPOSALS

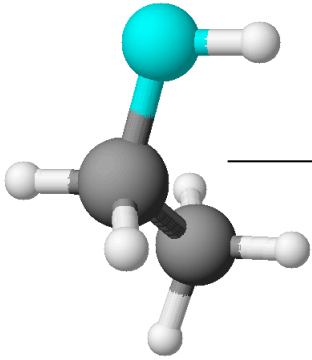
APPLICATION	PERCENT	SOURCE
Captive (chemical)	31.7	Syn.
Potable – domestic	6.0	Ferm.
-- export	14.8	Ferm.
Industrial – domestic	11.6	F & S
-- export	35.9	F & S
TOTAL	100.0	
	370 000 kl	in 2009



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SADC PRODUCERS & CAPACITIES

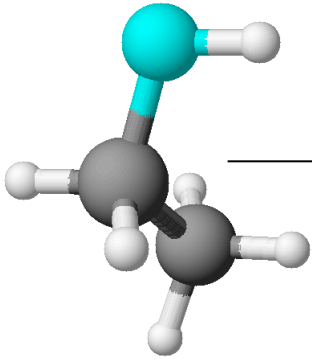
COUNTRY	COMPANY	CAPACITY
Swaziland	Royal Swazi Sugar	30 000
	USA Distillers	24 000
Zimbabwe	Triangle Industries	40 000
Malawi	Ethanol Company	16 000
	Press Cane	16 000
Mauritius	Grays & Medine	4 000
TOTAL		130 000 kl/a



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CURRENT FUEL ETHANOL INCORPORATION

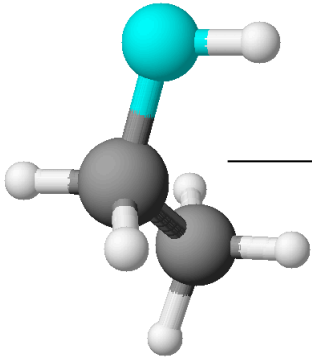
- MALAWI
- SOUTH AFRICA
- Zimbabwe historical



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MALAWI

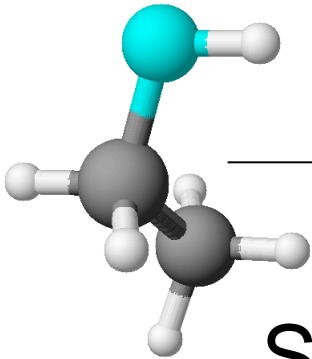
- Used E20 prior switch to ULP in Feb 06
- Currently using E10
- Ethanol production is 18 000 kl / a
- 50% of this applied to the fuel pool
- MS 573 defines unden'd fuel ethanol
- Recent SADCSTAN harmonisation initiative unsupported
- Switching back to E20 in 2011



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South Africa

- Sasol incorporate ethanol into fuel at a low addition rate (2% max.)
- Ethanol is synthetic
- Up to 9.5% inland, 7.5% coastal v/v ethanol permitted as per SANS 1598
- SANS 465 : 2005 applies

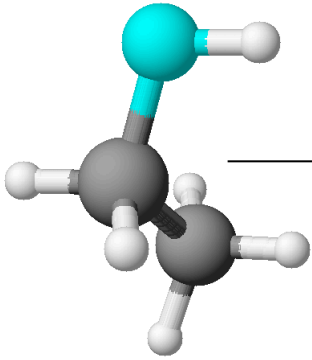


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SANS 465 & MS 573 COMPARISON

- 465 Denatured while 573 Undenatured
- 465 (ASTM D 4806) currently under review.

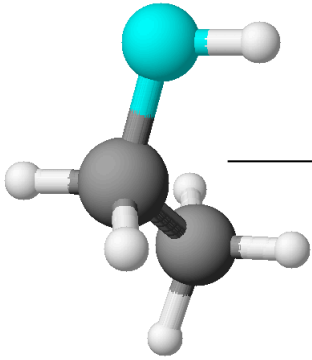
PARAMETER	465	573
Ethanol, % v/v min	92.1	99.5
Methanol, % & ppm	0.5	50
Water, % v/v max	1	0.5
Denaturant % v/v min	1.96	--
max	4.76	--



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SANS 465 : 2005 REVIEW

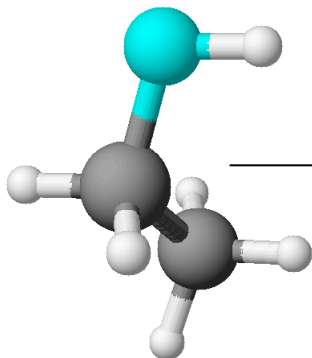
- Timing is opportune, consider incorporation of issues arising from IBSA workshop.
- Principles adopted to date :
 - Combine ASTM and EN standards which are denatured and undenatured resp'ly
 - Take cognisance of existing practice of ethanol incorporation into fuel.
- Work in progress - overleaf



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WORK IN PROGRESS - 1

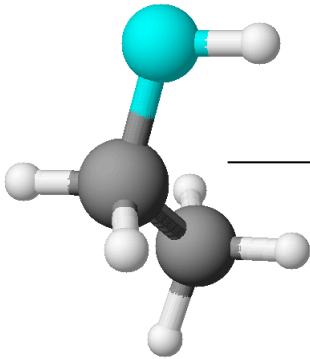
- Denaturant :
 - Petrol conforming to SANS 1598
 - Concern re extraction of denaturant
 - Adequacy of petrol as denaturant ?
 - Level at 2% -- 5% adequate ?
- Water
 - 0.3% m/m maximum in both ASTM & EN
 - Concern re water pick up during transfer and if imports necessary



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WORK IN PROGRESS -- 2

- Methanol : ASTM & EN specify different levels
- Solvent washed gum and involatile material limits to be correlated
- Total sulphate level specified to be checked for appropriateness
- Consider issues arising from this workshop

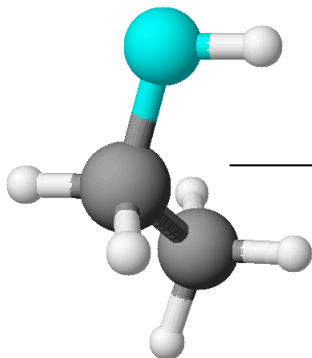


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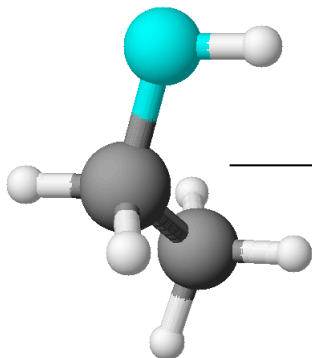
QUO VADIS

- Concern re slow implementation of fuel ethanol strategy in SA. Commercial aspects appear to be the obstacle.
- Consider standardisation via SADCSTAN as SA part supply 5 of 14 SADC countries
- Zimbabwe project : 100 000 kl/a
- Mozambique project : 150 000 kl/a
- Nomenclature : Fuel ethanol
- New members

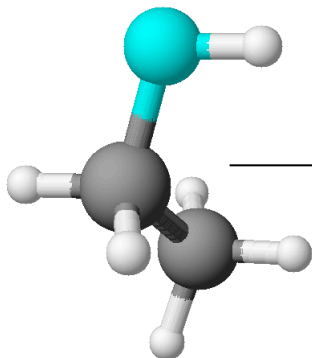
THANK YOU



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