

To: Carrier, David DM SGLPG-OIGS <david.carrier@shell.com>  
From: Clegg, Patsy M SCC-CHSE-PC  
</O=SHELL/OU=MSXSCC/CN=RECIPIENTS/CN=PH197432>  
Cc:  
Bcc:  
Received Date: 2004-09-13 00:26:30 GMT  
Subject: RE: Propane Specs

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Oh, my goodness. It is you! Yes, I am the Patsy; only I was Patsy Hill back then. In the meantime, my first husband passed away, I raised my 2 children; I have remarried - hence the new last name Clegg. I became an instant grandmother. Between the 2 us, we have 8 kids, 5 are married, with 10 grandchildren. I'm still in HSE - supporting the aromatics and phenol business, and beginning to do some lower olefins. Benzene keeps me very busy with the Shanghai Health Study and VCCEP (children's health). We implemented the SAP MSDS system last year, so that has been fun. Please, if you are ever in Houston, give me a call. Actually, I will be in London Oct 5-8. Getting in the morning of the 5th, so not yet sure if I am coming to Shell Centre or relaxing. Have to leave about 12 on Friday. Flying to Munich for a benzene symposium. In Rotterdam the following week for an audit and the London the following week finishing the audit. I plan to be at Shell on Friday, Oct 22. Maybe we could meet for coffee or lunch.

Regards,  
Patsy

Patsy Clegg  
Product Steward  
Shell Chemical LP  
One Shell Plaza, 910 Louisiana, Houston, TX 77002-4916

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Email: patsy.clegg@shell.com  
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-----Original Message-----

From: Carrier, David DM SGLPG-OIGS  
Sent: Friday, September 10, 2004 2:11 AM  
To: Clegg, Patsy M SCC-CHSE-PC  
Subject: RE: Propane Specs  
Sensitivity: Confidential

Patsy,

Out of curiosity, are you the Patsy that I worked with about 10 years ago when we were both working in the HSE regulatory compliance area? I came across to Houston to discuss AeroShell Products formulations and their classifications under EU regulations - and, more importantly, we went to see the Astros play!

Regards / Salutations

David Carrier

HSE Coordinator, Shell Gas (LPG)

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Shell Gas (LPG) intranet site: <http://sww-lpg.shell.com/lpg/generic/menu.asp?ID=1000>  
Shell Gas (LPG) WWW site: <http://www.shellgaslpg.com/>  
Please note that attachments are usually compressed

-----Original Message-----

From: Jim Krouse [mailto:Jim.Krouse@shellgas.com]  
Sent: 08 September 2004 15:16  
To: Vernon, George W SGLPG-OIGS; Clegg, Patsy M SCC-CHSE-PC  
Cc: Carrier, David DM SGLPG-OIGS; Jim Krouse  
Subject: RE: Propane Specs  
Sensitivity: Confidential

I agree with George

Regards

Jim Krouse  
Manager HSSE

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From: Vernon, George W SGLPG-OIGS [mailto:george.vernon@shell.com]  
Sent: Wednesday, September 08, 2004 10:13 AM  
To: Clegg, Patsy M SCC-CHSE-PC  
Cc: Carrier, David DM SGLPG-OIGS; Jim Krouse  
Subject: RE: Propane Specs  
Sensitivity: Confidential

Patsy

SHELL-MCCLURG-063490

I'm not immediately attracted to having a specific limit in any published spec - that would give a spurious credibility to some benzene content which I believe is very uncommon in commercial LPGs. My preference would be leave it covered by the generalities for now.

Fully support you setting such a limit for internal control purposes.

regards George

-----Original Message-----

From: Clegg, Patsy M SCC-CHSE-PC  
Sent: 08 September 2004 14:39  
To: Jim Krouse; Vernon, George W SGLPG-OIGS  
Cc: Carrier, David DM SGLPG-OIGS  
Subject: RE: Propane Specs  
Sensitivity: Confidential

Thanks to all for your timely responses. I am ordering a copy of the specs identified. Do you know if there is a benzene spec? If not, do we need to encourage the business to establish one? If so, at what level? Since LPG finds its way into the consumer market, I would suggest 0-1ppm. What do you think?

Regards,  
Patsy

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-----Original Message-----

From: Jim Krouse [<mailto:Jim.Krouse@shellgas.com>]  
Sent: Wednesday, September 08, 2004 8:17 AM  
To: Vernon, George W SGLPG-OIGS; Clegg, Patsy M SCC-CHSE-PC  
Cc: Carrier, David DM SGLPG-OIGS; Jim Krouse  
Subject: RE: Propane Specs

All

Specifications of LP-Gases are listed in Gas Processors Association, Standard 2140, Liquefied Petroleum Gas Specifications for Test Methods, or ASTM D1835, Specifications for Liquefied Petroleum (LP) Gases.

Regards

Jim Krouse  
Manager HSSE

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From: Vernon, George W SGLPG-OIGS [mailto:george.vernon@shell.com]  
Sent: Wednesday, September 08, 2004 3:50 AM  
To: Clegg, Patsy M SCC-CHSE-PC  
Cc: Carrier, David DM SGLPG-OIGS; Jim Krouse  
Subject: RE: Propane Specs

Hi Patsy

Yes indeed we would like the benzene content (all aromatics) to be effectively zero (certainly <0.1% m/m) for commercial grades of LPG for the very sound H & S reason that you mention. I believe the commercial LPG spec in the US is HD5 published by GPA up in Tulsa. Our folks in Shell Gas USA in Michigan (Jim Krouse) may be able to help you more if necessary.

regards George

-----Original Message-----

From: Clegg, Patsy M SCC-CHSE-PC  
Sent: 07 September 2004 18:33  
To: Carrier, David DM SGLPG-OIGS; Vernon, George W SGLPG-OIGS  
Subject: Propane Specs

David and George;

Rick Weidel gave me your names. I am trying to answer a question from the Shell Chemicals phenol business. Propane is a by-product of cumene manufacture. The propane stream is sent to the refinery to become a part of the propane pool that is converted to LPG. The question is: What is the Shell, industry and/or regulatory limit for benzene in propane/LPG. The only reference we can find in the US is a fuels spec (40 CFR 79.55) which limits "butane and heavier, vol%, max 2.5." Barring a spec that we have yet to identify, HSE would prefer that a spec of <0.1% be established to preclude cancer warnings on the product.

I would appreciate any help that you could give me in answering this question.

Regards,

SHELL-MCCLURG-063492

Patsy

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