

## Europe Gas & Liquid Chemicals Committee Meeting Summary and Minutes

SEMICON Europa  
Tuesday, 07 October 2014, 14:00 – 17:00  
Alpexpo, Grenoble, France

### Next Committee Meeting

To be announced

### Committee Announcements (optional)

### Table 1 Meeting Attendees

**Co-Chairs:** Jean-Marie Collard (Solvay), Gordon Ferrier (Gordon F Consulting)

**SEMI Staff:** Andrea Busch, James Amano

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
Air Products & Chemicals Inc.	Buchanan	Iain	Pall GmbH	Ruth	Jochen
Solvay	Collard	Jean-Marie	Kint-Tek Analytical	McKinley	James
Eco Scientific Ltd.	Durrant	Stephen	Dow Chemicals	Lamare	Bruno
Gordon Ferrier Consulting	Ferrier	Gordon			
M&W Products GmbH	Otto	Michael			

### Table 2 Leadership Changes

<i>Group</i>	<i>Previous Leader</i>	<i>New Leader</i>
Solvents in advanced processes TF	G De Vos	Position is open
Technical Committee	G De Vos (vice-chair)	Position is open

### Table 3 Ballot Results (or move to Section 4, Ballot Review)

**Passed** ballots and line items will be submitted to the ISC Audit & Review Subcommittee for procedural review.

**Failed** ballots and line items were returned to the originating task forces for re-work and re-balloting.

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
5656	Revision to SEMI C65 0308 with title change to: Guide For Trimethylsilane (3MS), 99.995% Quality	Failed
5657	Revision to SEMI C66 0308 with title change to: Guide For Trimethylaluminium (TMAI), 99.5% Quality	Failed
5658	New Standard: Guide for Pentakis (Dimethylamino) Tantalum (PDMAT)	Failed
5492	New Standard: Guide for Ethylene Glycol	Approved

### Table 4 Authorized Ballots (or move to Section 7, New Business)

<i>#</i>	<i>When</i>	<i>SC/TF/WG</i>	<i>Details</i>
5765	2015	Permeation tubes for Trace Moisture Calibration	Ballot 5765 : Revision to SEMI C15 : Test Method for ppm and ppb humidity standards will be prepared for balloting next year.

**Table 4 Authorized Ballots (or move to Section 7, New Business)**

#	When	SC/TF/WG	Details
5656, 5657, 5658	2015	Precursor Specifications TF	These documents failed Technical Committee Review due to the legitimacy of reject comments. The comments will be taken into account and these documents will be re-balloted in 2015.

Note: SNARFs and TFOFs are available for review on the SEMI Web site at:

<http://downloads.semi.org/web/wstdsbal.nsf/TFOFSNARF>

**Table 5 Authorized Activities (or move to Section 7, New Business)**

None.

**Table 6 New Action Items (or move to Section 8, Action Item Review)**

Item #	Assigned to	Details
1		Redraft ballots 5656, 5657 and 5658 in TF
2	J-M Collard	See if Fuji Film is interested in working on ballot 5325 <i>New Standard: Dimethyl Dimethoxy Silane (DMDMOS)</i>
3	Iain Buchanan	See if Air Products & Chemicals Inc. is interested in leading 5491 <i>New Standard: Guide for Titanium Tetrachloride TiCl4</i>
4	J-M Collard	See if Air Liquide is interested in working on 5493 <i>New Standard: Guide for Octa Methyl Cyclo Tetra Siloxane (OMCTS)</i>
5	J-M Collard	See if Air Liquide is interested in working on ballot 5494 <i>New Standard: Guide for Tetra Methyl Cyclo Tetra Siloxane (TMCTS)</i>
6	J-M Collard	See if Honeywell is interested in working on Ballot 5495 <i>New Standard: Guide for CycloHexanone</i>
7	Jim McKinley	Prepare Ballot 5765 : <i>Revision to SEMI C15 : Test Method for ppm and ppb humidity standards</i> for balloting next year
8	Michael Otto	See if M&W Group is interested in pursuing activity around polarized fittings
9	James Amano	Create survey to be distributed in the industry to judge interest in pursuing polarized fittings activity. Present activity to NA Facilities TC
10	James Amano	Present SEMI Standard F 96 to NA Facilities TC to see if they have interest in renewing this standard

## 1 Welcome, Reminders, and Introductions

Jean-Marie Collard called the meeting to order at 14:00. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

## 2 Review of Previous Meeting Minutes

The committee reviewed the minutes of the previous meeting. A couple of modifications were made:

- Neubauer → Neuber
- TMAI → TMAI

**Motion:** Approve the previous meeting minutes

**By / 2<sup>nd</sup>:** Iain Buchanan/Jochen Ruth

**Discussion:** Two small changes should be made (details above)

**Vote:** 8/8 in favor

### **3 Liaison Reports**

#### *3.1 Japan Gases & Facilities Committee*

Jean-Marie Collard reported for the Japan Gases & Facilities Committee.

**Attachment:** In accompanying ZIP file

#### *3.2 North America Gases & Facilities Committee*

Jean-Marie Collard reported for the North America Gases & Facilities Committee.

**Attachment:** In accompanying ZIP file

#### *3.3 Japan Liquid Chemicals Committee*

Jean-Marie Collard reported for the Japan Liquid Chemicals Committee.

**Attachment:** In accompanying ZIP file

#### *3.4 North America Liquid Chemicals Committee*

Jean-Marie Collard reported for the North America Liquid Chemicals Committee.

**Attachment:** In accompanying ZIP file

#### *3.5 SEMI Staff Report*

Andrea Busch & James Amano (SEMI) gave the SEMI Staff Report.

**Attachment:** In accompanying ZIP file

#### *3.6 ITRS Report*

Jean-Marie Collard gave the ITRS Report.

**Attachment:** In accompanying ZIP file

#### 4 Ballot Review

4.1 Document # 5656, Revision to SEMI C65 0308 with title change to: Guide For Trimethylsilane (3MS), 99.995% Quality

##### Tallies

<b>1</b>	
<b>As Cast Ballot Tally Summary For Document 5656</b>	
<b>Return Percentage: 64.00%</b>	<b>TC Member Returns: 48</b> <b>TC Member Distribution: 75</b>
<b>Total votes Received: 76</b>	
<b>Number of Accepts: 24</b> <b>Accept %: 96.00%</b>	<b>Number of Rejects: 1</b>
<b>Total Comments: 0</b>	<b>Total Rejects: 1</b>
<b>Comment Issuer(s):</b>	<b>Reject Issuer(s):</b> <b>Iain Buchanan (Air Products)</b>

**NOTICE:** This document met the 90% approval condition set forth in Section 9.6.3 of the *Regulations Governing SEMI Standards Committees* at the close of balloting.

##### Rejects/Negatives

Propose to eliminate Sb, Ge, Mg from guideline because most customers are not interested in these elements.

##### Comments

**NOTICE:** Items from “Reject” votes that are clearly marked by the voter as comments are included here.

**Motion:** Find negative vote #1 (Iain Buchanan) related and technically persuasive and FAIL the ballot  
**By / 2<sup>nd</sup>:** Michael Otto/Iain Buchanan  
**Discussion:** Germanium is not included in the Critical Elements listed by SEMI. Magnesium and Antimony are listed as Critical Materials and both can be an issue for the industry. It was agreed with Iain Buchanan that Germanium would be removed from a revised version, but Magnesium and Antimony would remain included in the final version.  
**Vote:** 4 in favor/0 against

**Action Item:** Redraft ballot in TF

4.2 Document # 5657, Revision to SEMI C66 0308 with title change to: Guide For Trimethylaluminium (TMAI), 99.5% Quality

#### Tallies

<b>1</b>	
<b>As Cast Ballot Tally Summary For Document 5657</b>	
<b>Return Percentage: 64.00%</b>	<b>TC Member Returns: 48</b> <b>TC Member Distribution: 75</b>
<b>Total votes Received: 76</b>	
<b>Number of Accepts: 22</b> <b>Accept %: 95.65%</b>	<b>Number of Rejects: 1</b>
<b>Total Comments: 0</b>	<b>Total Rejects: 1</b>
<b>Comment Issuer(s):</b>	<b>Reject Issuer(s):</b> <b>Iain Buchanan (Air Products)</b>

**NOTICE:** This document met the 90% approval condition set forth in Section 9.6.3 of the *Regulations Governing SEMI Standards Committees* at the close of balloting.

#### Rejects/Negatives



TMAI Changes  
140814.docx

#### Comments

The numbers are too tight, and the specs should be relaxed

**NOTICE:** Items from “Reject” votes that are clearly marked by the voter as comments are included here.

**Motion:** Find negative vote #1 (Iain Buchanan) related and technically persuasive and FAIL the ballot  
**By / 2<sup>nd</sup>:** Michael Otto/Bruno Lamare  
**Discussion:** Specs should be relaxed  
**Vote:** 5 in favor/0 against

**Action Item:** Redraft ballot in TF

#### 4.3 Document # 5658, New Standard: Guide for Pentakis (Dimethylamino) Tantalum (PDMAT)

##### Tallies

<b>1</b>	
<b>As Cast Ballot Tally Summary For Document 5658</b>	
<b>Return Percentage: 64.00%</b>	<b>TC Member Returns: 48</b> <b>TC Member Distribution: 75</b>
<b>Total votes Received: 76</b>	
<b>Number of Accepts: 19</b> <b>Accept %: 95.00%</b>	<b>Number of Rejects: 1</b>
<b>Total Comments: 0</b>	<b>Total Rejects: 1</b>
<b>Comment Issuer(s):</b>	<b>Reject Issuer(s):</b> <b>Iain Buchanan (Air Products)</b>

**NOTICE:** This document met the 90% approval condition set forth in Section 9.6.3 of the *Regulations Governing SEMI Standards Committees* at the close of balloting.

##### Rejects/Negatives



PDMAT Changes  
140812.docx

##### Comments

The numbers are too tight, and the specs should be relaxed

**NOTICE:** Items from “Reject” votes that are clearly marked by the voter as comments are included here.

**Motion:** Find negative vote #1 (Iain Buchanan) related and technically persuasive and FAIL the ballot

**By / 2<sup>nd</sup>:** Iain Buchanan/Gordon Ferrier

**Discussion:** Specs should be relaxed

**Vote:** 5 in favor/0 against

**Action Item:** Redraft ballot in TF

#### 4.4 Document # 5492, New Standard: Guide for Ethylene Glycol

##### Tallies

<b>1</b> <b>As Cast Ballot Tally Summary For Document 5492</b>	
Return Percentage: 64.00%	TC Member Returns: 48 TC Member Distribution: 75
Total votes Received: 76	
Number of Accepts: 26 Accept %: 100%	Number of Rejects: 0
Total Comments: 1	Total Rejects: 0
Comment Issuer(s): Rafael Vargas Bernal (ITSdl)	Reject Issuer(s):

**NOTICE:** This document met the 90% approval condition set forth in Section 9.6.3 of the *Regulations Governing SEMI Standards Committees* at the close of balloting.

##### Rejects/Negatives

None.

##### Comments

End Points must be added in several subsections.

**Motion:** To approve Document # 5492, New Standard: Guide for Ethylene Glycol as balloted and forward to the A&R SC for procedural review.

**By / 2<sup>nd</sup>:** Michael Otto/Iain Buchanan

##### Discussion:

**Vote:** 6 in favor/ 0 against

## 5 Old Business

5.1 SEMI draft document 5325 *New Standard: Dimethyl Dimethoxy Silane (DMDMOS)*

J-M Collard addressed the committee on this topic.

**Action Item:** J-M Collard will see if Fuji Film is interested in working on this ballot

5.2 SEMI draft document 5491 *New Standard: Guide for Titanium Tetrachloride*

J-M Collard addressed the committee on this topic.

**Action Item:** Iain Buchanan will see if Air Products & Chemicals Inc. is interested in leading this Standard

5.3 SEMI draft document 5493 *New Standard: Guide for Octa Methyl Cyclo Tetra Siloxane (OMCTS)*

J-M Collard addressed the committee on this topic.

**Action Item:** J-M Collard will see if Air Liquide is interested in working on this ballot

#### 5.4 SEMI draft document 5494 *New Standard: Guide for Tetra Methyl Cyclo Tetra Siloxane (TMCTS)*

J-M Collard addressed the committee on this topic.

**Action Item:** J-M Collard will see if Air Liquide is interested in working on this ballot

#### 5.5 SNARF draft document 5495 *New Standard: Guide for CycloHexanone*

Jean-Marie Collard addressed the committee on this topic.

**Action Item:** J-M Collard will see if Honeywell is interested in taking over this SNARF

#### 5.6 5765 : Revision to SEMI C15 : Test Method for ppm and ppb humidity standards

**Action Item:** Submit ballot for voting next year

#### 5.7 Revision to 5656

**Action Item:** Submit ballot for voting next year

#### 5.8 Revision to 5657

**Action Item:** Submit ballot for voting next year

#### 5.9 Revision to 5658

**Action Item:** Submit ballot for voting next year

**Motion:** Accept all of these Action Items

**By / 2<sup>nd</sup>:** Gordon Ferrier/Stephen Durrant

**Discussion:**

**Vote:** 7 in favor, 0 against

## 6 New Business

### 6.1 Dow Electronics suggests creating a document to deal with polarization fittings

**Discussion:** The question was asked: is standardization of polarized fittings something that will be relevant for the industry? One member suggests that it is more complicated at the customer level than at the production level, so standardization may not be relevant. Members decide to explore the possibility of following this line of activity by taking the following actions:

**Action Item:** Michael Otto will contact M + W to see if this is an issue for their company

**Action Item:** James Amano will generate a survey to judge the industry interest in pursuing this activity and will present the activity to the NA Facilities TC

**Attachment:** Standardization of Polarized Fittings for TMGa, TMAI, TEGa cylinders Document in accompanying ZIP file



## 6.2 SEMI Standard F96 needs to be updated

**Discussion:** In the industry, the standard never caught on. It is probably best to let this document go inactive.

**Action Item:** James will present this to the North American Facilities TC to see if they want to work on this revision, if not it will be left inactive

**Motion:** Accept all of these New Business Action Items

**By / 2<sup>nd</sup>:** Gordon Ferrier/Stephen Durrant

**Discussion:**

**Vote:** 7 in favor, 0 against

## 7 Next Meeting and Adjournment

To be announced

Respectfully submitted by:  
 Andrea Busch  
 Project and Standards Coordinator  
 SEMI Europe Grenoble Office  
 Phone: 04 56 59 30 59  
 Email: abusch@semi.org

Minutes approved by:

Gordon Ferrier (Gordon F Consulting), Co-chair	October 23, 2014
Jean-Marie Collard (Solvay), Co-chair	October 27, 2014

**Table 7 Index of Available Attachments #1**

#	<i>Title</i>	#	<i>Title</i>
3.1	<i>Japan Gases &amp; Facilities Committee</i>	4.2	TMAI suggested changes
3.2	<i>North America Gases &amp; Facilities Committee</i>	4.3	PDMAT suggested changes
3.3	<i>Japan Liquid Chemicals Committee</i>	6.1	Standardization of Polarized Fittings Document
3.4	<i>North America Liquid Chemicals Committee</i>		
3.5	<i>SEMI Staff Report</i>		
3.6	<i>ITRS Report</i>		

#1 Due to file size and delivery issues, attachments must be downloaded separately. A .zip file containing all attachments for these minutes is available at [www.semi.org](http://www.semi.org). For additional information or to obtain individual attachments, please contact [SEMI Staff Name] at the contact information above.