

# ***INTERNATIONAL CYANIDE MANAGEMENT INSTITUTE***

## ***Cyanide Transportation Summary Audit Report***

***For the  
International Cyanide Management Code***

### **Turkey Supply Chain**

**09 January 2018**

Samsung C&T Corporation 09 January 2018

Name of Supply Chain Operator

Lead Auditor Signature

09 Jan., 2018

Date

**Name of Cyanide Supply Chain: Turkey Supply Chain**  
**Name of Supply Chain Owner: Samsung C&T Corporation**  
**Name of Supply Chain Operator: Samsung C&T Corporation**  
**Name of Responsible Manager: Mr. Hoyoung Jung / General Manager of Fine & Specialty Chemicals Team, Trading & Investment Group, Samsung C & T Corporation**  
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**Location detail and description of operation:**

The head office of Samsung C & T Corporation is located in Seoul, Korea. It has four groups named as Trading & Investment Group, Engineering & Construction Group, Fashion Group and Resort Group. Related to supplying the sodium cyanide, the main jobs of Trading & Investment Group are making agreement with mining company, receiving customer order, review of customer order and arrangement of shipping. Those were conducted by Fine & Specialty Chemicals Team in Trading & Investment Group of Samsung C & T Corporation.

Two supply chains as Africa Supply Chain and South America Supply Chain of Samsung C&T Corporation were already ICMC certified.

Recently, the Samsung C&T Corporation applied ICMC certification audit for Turkey Supply Chain in which the transportation of sodium cyanide from manufacture in Korea to customer mining sites in Turkey were included.

The detail segments and subcontractors in Turkey Supply Chain are as below.

1. Sodium cyanide manufacturer: TaeKwang Industrial Co., Ltd., Ulsan Plant in Korea.
2. Roadway transportation by truck from sodium cyanide manufacturer in located at Ulsan Plant to Pusan New Port in Korea : Sebang Co., Ltd. and Hae Dong Logistics
3. Marine transportation from Pusan New Port in Korea to Mersin Port in Turkey : MSC
4. Roadway transportation from Mersin Port to trans-loading and interim storage facility in Mersin Tarsus Organize Sanayi Bolgesi and customer mining sites in Turkey : TO-PET A.S.
5. Operation of trans-loading and interim storage facility in Turkey : Unico Logistics

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*Auditor's Finding*

**This operation is**

**X in full compliance**

in substantial compliance \*(see below) with the International Cyanide Management Code

not in compliance

**with the International Cyanide Management Code.**

**Audit Company: DS GMP**

**Audit Team Leader: Mr. DoSik Yoon**

**E-mail: dosiky@naver.com**

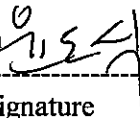
**Dates of Audit: 2, 6, 7 and 17 October 2017**

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader established by the International Cyanide Management Institute and that the audit team meet the applicable criteria established by the International Cyanide Management Institute for Code Verification Auditors.

I attest that this Summary Audit Report accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in accordance with the International Cyanide Management Code Verification Protocol for Cyanide Transportation Operations and using standard and accepted practices for health, safety and environmental audits.

Samsung C&T Corporation

Do Sik Yoon



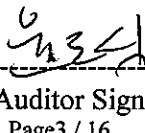
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### Summary Audit Report

**1. TRANSPORT: Transport cyanide in a manner that minimizes the potential for accidents and release.**

*Transport Practice 1.1: Select cyanide transport routes to minimize the potential for accidents and releases.*

The operation is  **X in full compliance with**  
 in substantial compliance **with Transport Practice 1.1**  
 not in compliance with

*Summarize the basis for this Finding/Deficiencies Identified:*

Samsung C&T Corporation established and have implemented hazardous chemical transportation manual since the year 2010. It shall consider population density, infrastructure, security, possibility of hijacking and cost effectiveness according to the manual, when it selects the sodium cyanide transportation routes. In December 2016, Samsung C&T Corporation has considered overall transportation route from sodium cyanide manufacture TaeKwang Industrial Co., Ltd. ,Ulsan Plant in Korea to customer mining sites in Turkey according to their manual. It identified several possible routes from sodium cyanide manufacture in Korea to customer mining sites in Turkey. It evaluated the routes for such items as availability, security, transportation quantity and cost. It finally decided the transportation routes as below;

- 1) From cyanide manufacturer, TaeKwang Industrial Co., Ltd., Ulsan plant to Pusan New Port in Korea: Roadway transportation by truck
- 2) Pusan New Port in Korea to Mersin Port in Turkey: Marine transportation by ship
- 3) Mersin Port to trans-loading and interim storage facility in Mersin Tarsus Organize Sanayi Bolgesi and customer mining sites in Turkey: Roadway transportation by truck

The Samsung C&T Corporation has operated the trans-loading and interim storage facility in Mersin Tarsus Organize Sanayi Bolgesi in Turkey to response promptly for gold mining's supplying request of sodium cyanide.

In March, 2017, the Samsung C & T Corporation evaluated and chose sodium cyanide manufacturer, transporters, shipping company and operator of trans-loading and interim storage facility according to the sub-contractor evaluation procedure as below;

- 1) Sodium cyanide manufacturer: TaeKwang Industrial Co., Ltd. located Ulsan Plant in Korea.
- 2) Roadway transportation by truck from sodium cyanide manufacture in Ulsan Plant to Pusan New Port in Korea: Sebang Co., Ltd. and Hae Dong Logistics
- 3) Marine transportation from Pusan New Port in Korea to Mersin Port in Turkey: MSC
- 4) Roadway transportation from Mersin Port to trans-loading and interim storage facility and customer mining sites in Turkey: TO-PET A.S.
- 5) Operation of Trans-loading and interim storage facility in Turkey: Unico Logistics

Considering the situations of cyanide manufacturer, transporters, shipping company and operator of trans-loading and interim storage facility, the Samsung C&T Corporation decided the control measure for each segment in Turkey Supply Chain as below;

- 1) Roadway transportation in Korea by Sebang Co., Ltd. and Hae Dong Logistics
  - (1) Periodic supplier evaluation by Samsung C&T Corporation
  - (2) Implementation and certification of ICMC by Sebang Co., Ltd. and Hae Dong LogisticsThe Sebang Co., Ltd was ICMC initially certified during February 01. 2016 year and the Hae Dong Logistics was ICMC initially certified during December 19, 2016 year.

- 2) Pusan New Port in Korea
  - (1) Periodic route evaluation by Samsung C&T Corporation

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- (2) Periodic due diligence investigation by Samsung C&T Corporation
- 3) Marine transportation by shipping company MSC
  - (1) Periodic route evaluation by Samsung C&T Corporation
  - (2) Periodic due diligence investigation by Samsung C&T Corporation
- 4) Mersin Port in Turkey
  - (1) Periodic route evaluation by Samsung C&T Corporation
  - (2) Periodic due diligence investigation by Samsung C&T Corporation
- 5) Road transportation in Turkey by TO-PET A.S.
  - (1) Periodic supplier evaluation by Samsung C&T Corporation
  - (2) Periodic due diligence investigation by Samsung C&T Corporation
- 6) Operation of trans-loading and interim storage facility in Turkey by Unico Logistics
  - (1) Periodic supplier evaluation by Samsung C&T Corporation
  - (2) Periodic due diligence investigation by Samsung C&T Corporation

According to hazardous chemical transportation manual, the Samsung C&T Corporation has identified hazards and evaluated the risks for the Turkey Supply Chain in March, 2017. The following high risks were identified;

- Release of sodium cyanide powder to road, land and surface water during roadway transportation by transporters.
- Damage to sodium cyanide container and human contact with sodium cyanide in ports
- Release to sea water during marine transportation by shipping company
- Robbery during road transportation, storage in interim storage areas and ports and marine transportation.

The Samsung C&T Corporation prepared control measures for the high risks identified as below;

- 1) Release of sodium cyanide powder to road, land and surface water during roadway transportation by transporters.
  - Complete the supplier evaluation for road transporters by Samsung C&T Corporation
  - Roadway transporters Sebang Co., Ltd. and Hae Dong Logistics maintain ICMC certification
  - Complete due diligence investigation for roadway transportation in Turkey as roadway transporter TO-PET A.S. is not ICMC certified yet.
  - Prepare and apply emergency response plan for the accident of sodium cyanide spillage
- 2) Damage to sodium cyanide container and human contact in ports
  - Due diligence investigation for ports by Samsung C&T Corporation
  - Prepare and apply emergency response plan for the accident of human contact with sodium cyanide
- 3) Release to sea water during marine transportation by shipping company
  - Complete the supplier evaluation for shipping company by Samsung C&T Corporation
  - Due diligence investigation for shipping company by Samsung C&T Corporation
  - Prepare and apply emergency response plan for the accident of sodium cyanide spillage
- 4) Robbery during road transportation, storage in interim storage areas and ports and marine transportation.
  - Complete the supplier evaluation for road transporters by Samsung C&T Corporation
  - Road transporters as Sebang Co., Ltd. and Hae Dong Logistics maintain ICMC certification
  - Complete the supplier evaluation for shipping company by Samsung C&T Corporation
  - Due diligence investigation for ports and shipping company by Samsung C&T Corporation
  - Complete due diligence investigation for road transportation by TO-PET A.S. and operation of trans-loading and storage facility by Unico Logistics in Turkey by Samsung C&T Corporation
  - Use of escort and convey for road transportation in Turkey

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According to hazardous chemical transportation manual, the Samsung C&T Corporation should reevaluate the overall routes of Turkey Supply Chain every three year periodically. In case that there is any change related to routes, transporters, facilities and relevant legal requirements, it will reevaluate the routes non-periodically. As completing the route evaluation for the Turkey Supply Chain in December, 2016, Samsung C&T Corporation is to reevaluate the routes in 2019.

Samsung C&T Corporation is to also receive information related to cyanide transportation routes from sodium cyanide manufacturer, road transporters, ports, shipping company and other sub-contractors. The review of information to identify any other safety issues was defined in their manual. There is no special issue from Turkey Supply Chain through the year 2016 to 2017.

In March, 2017, the Samsung C&T Corporation has identified the hazards and evaluated the overall risks for the Turkey Supply Chain. And then, Samsung C&T Corporation documented the control measures for high risks in Turkey Supply Chain. From March to September 2017, it completed the control measures such as supplier evaluation, check the certification of ICMC by applicable subcontractors and due diligence investigation for ports, shipping company, road transportation and operation of trans-loading and interim storage facility in Turkey. It also established emergency response plan for sodium cyanide release into land, river and sea, humane contact and inhalation, robbery by criminal suspect.

When the Samsung C&T Corporation selected the transportation route of Turkey Supply Chain and developed the control measures for high risks, they considered and reflected the comments from communities and stakeholders such as Ulsan government office, Pusan government office, hospitals in Ulsan and Pusan, sodium cyanide manufacture, road transporters, shipping company, Korea Occupational Health and Safety Agency and local fire fighting agency. The Samsung C&T Corporation informed the sodium cyanide transportation and received some general comments.

The Samsung C&T Corporation reviewed the overall route for Turkey Supply Chain from cyanide manufacture to customer mining sites in Turkey. According to the review results and mining customer requests, it has used convoys and escorts for roadway transportation from Mersin Port, trans-loading and interim storage facility to customer mining sites in Turkey. It finally decided that convoys, escorts or additional measures are unnecessary for other segments with their reasonable justification. For roadway transportation from Mersin Port, trans-loading and interim storage facility to customer mining sites in Turkey, the roadway transporter TO-PET A.S. have used escort and convoy for their transportation by trucks.

The Samsung C&T Corporation has established emergency response plan for sodium cyanide release to land and water and human exposure. In the emergency response plan, role and mutual aid with sodium cyanide manufacture, transporters, ports, safety agency, police, fire fighting agency, hospital etc. were defined. It advised the emergency response plan to relevant bodies and delivered the sodium cyanide handling manual as pocket book and material safety data sheet.

The Samsung C&T Corporation communicated the emergency response plan, their sodium cyanide handling manual as pocket book and material safety data sheet to manufacturer, road transporters, ports, shipping company and operator of trans-loading and interim storage facility and requested implementation.

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*Transport Practice 1.2: Ensure that personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment.*

The operation is  **X in full compliance with**  in substantial compliance  not in compliance with **with Transport Practice 1.2**

*Summarize the basis for this Finding/Deficiencies Identified:*

During the subcontractor evaluation and due diligence investigation, the Samsung C&T Corporation checked and evaluated sodium cyanide transporters whether the operators were trained, qualified and licensed. It confirmed that the transporters have used operators and drivers trained, qualified and licensed according to national legal requirements. The Samsung C & T Corporation have prepared and communicated sodium cyanide handling manual as pocket book to manufacture, transporters, ports and shipping company to use during training, daily operation and emergency situation.

*Transport Practice 1.3: Ensure that transport equipment is suitable for the cyanide shipment.*

The operation is  **X in full compliance with**  in substantial compliance  not in compliance with **with Transport Practice 1.3**

*Summarize the basis for this Finding/Deficiencies Identified:*

According to hazardous chemical transportation manual, the Samsung C&T Corporation evaluated subcontractors in March, 2017. During the subcontractor evaluation, it checked and evaluated sodium cyanide transporters whether the transport equipment is suitable for sodium cyanide transportation. They found that roadway transporters have used only equipment designed and maintained to operate within the designed capacity.

While, through the due diligence investigation, it checked the ports and shipping company whether the transport equipments are suitable or not. The due diligence investigation result said that the ports and shipping companies used suitable equipments.

According to the results of subcontractor evaluation and due diligence investigation, the Samsung C&T Corporation confirmed that transporters, ports and shipping company have preventive maintenance procedure to control the transport equipment, and it confirmed that the transporters and operator of interim storage facility have procedure and container itself designated to prevent overloading.

*Transport Practice 1.4: Develop and implement a safety program for transport of cyanide.*

The operation is  **X in full compliance with**  in substantial compliance  not in compliance with **with Transport Practice 1.4**

*Summarize the basis for this Finding/Deficiencies Identified:*

The Samsung C&T Corporation evaluated subcontractors in March, 2017. According to the subcontractor evaluation results, it found that transporters and operator of interim storage facility have maintained procedure and work instruction to maintain the integrity of manufacture's packaging. And also, the Samsung C&T Corporation found that transporters used placard and signage to identify the shipment of sodium cyanide.

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According to the subcontractor evaluation results, the Samsung C&T Corporation found transporters established and implemented safety program related to transportation equipment and drivers.

*Transport Practice 1.5: Follow international standards for transportation of cyanide by sea and air.*

**The operation is**  **X in full compliance with** **with Transport Practice 1.5**  
 in substantial compliance  
 not in compliance with

*Summarize the basis for this Finding/Deficiencies Identified:*

The Samsung C&T Corporation evaluated shipping company according to hazardous chemical transportation manual. It evaluated such items as compliance of target delivery, compliance with IMDG Code, legal requirements and international standards and accident cases during marine transportation. Considering the evaluation results, It selected MSC as shipping company for sodium cyanide transportation from Pusan New Port in Korea to Mersin Port in Turkey.

The Samsung C&T Corporation completed the due diligence investigation for the shipping company MSC in September 2017. According to the due diligence investigation, the Samsung C&T Corporation confirmed that shipping companies were comply with IMDG Code.

The Samsung C&T Corporation does not transport sodium cyanide by air.

*Transport Practice 1.6: Track cyanide shipments to prevent losses during transport.*

**The operation is**  **X in full compliance with** **with Transport Practice 1.6**  
 in substantial compliance  
 not in compliance with

*Summarize the basis for this Finding/Deficiencies Identified:*

The Samsung C&T Corporation conducted the subcontractor evaluation for transporters in Turkey Supply Chain. According to the evaluation results, the Samsung C&T Corporation found that the transportation vehicles have means to communication with relevant bodies. It also confirmed that transporters periodically tested their communication equipments according to their work instruction. The Samsung C&T Corporation checked the overall routes of Turkey Supply Chain, and found no blackout area. Samsung C&T Corporation requested to transporters to identify blackout area and alternative process to control the blackout area. Until now, it has not received any identified blackout area from transporters.

Since the year 2010, the Samsung C & T Corporation has the process to track the progress of cyanide shipments, inventory control and custody documentation for the export of sodium cyanide products. The process was also applied to Turkey Supply Chain. As necessary, it tracked the progress of cyanide shipments by contact with sodium cyanide manufacture, transporters and website check of shipping company.

According to annual sales plan, the Samsung C&T Corporation requested sodium cyanide manufacturer to dispatch the sodium cyanide and nominate the shipping company. The individual dispatch order (order number, target delivery and amount), dispatched date and quantity of sodium cyanide from manufacture to shipping company were registered in computer network system of Samsung C & T Corporation. The progress of marine transportation by shipping company can be checked for individual dispatch order in web-site of shipping company.

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According to the subcontractor evaluation results, the Samsung C&T Corporation confirmed that the manufacturer controlled the dispatch amount and date for individual order in their computer network system. It recorded the same items in dispatch sheet and issued to roadway transporters. As the road transporters transport the sodium cyanide to Pusan New Port, the dispatch sheet and sodium cyanide delivered to shipping company. The shipping company checked the dispatch sheet and sodium cyanide containers and input the shipping results in their computer network system. The inventory control and custody documentation were properly implemented to prevent the loss of sodium cyanide during transportation.

The Turkey agent of Samsung C & T Corporation conducted the customs clearance in Mersin Port and requested transportation to transporter from Mersin Port to trans-loading and interim storage facility in Mersin Tarsus Organize Sanayi Bolgesi in Turkey. The input, output and current stock quantity of sodium cyanide in trans-loading and interim storage facility in Mersin Tarsus Organize Sanayi Bolgesi in Turkey are controlled in computer network system of Samsung C & T Corporation.

The Samsung C & T Corporation receives purchasing orders from gold mining customers in Turkey, and reviews the delivery target date and quantity, and inputs the orders in computer network system. It requested the operator of trans-loading and interim storage facility to dispatch and to transporter to transport the sodium cyanide as purchasing orders from customers. The individual customer order (order number, target delivery and amount), dispatched date from trans-loading and interim storage facility in Turkey and quantity of sodium cyanide were registered in computer network system of Samsung C & T Corporation. The progress of roadway transportation from trans-loading and interim storage facility to gold mining sites in Turkey can be tracked by contact with transporter.

The dispatch orders (order number, target delivery and amount), dispatched date and quantity of sodium cyanide from manufacture to shipping company were registered in computer network system of Samsung C & T Corporation. The progress of marine transportation by shipping company can be checked for each dispatch orders in web-site of shipping company.

The purchasing orders (order number, target delivery and amount) of mining customers, dispatched date and quantity of sodium cyanide from trans-loading and interim storage facility to mining sites in Turkey were also registered in computer network system of Samsung C & T Corporation. Samsung C & T Corporation records the same items in dispatch sheet and issued to roadway transporter in Turkey. So, the amount of cyanide in transit also can be checked in computer network system of Samsung C & T Corporation and dispatch sheet maintained by transporter. According to the subcontractor evaluation results, sodium cyanide manufacture, roadway transporters and shipping company controlled the Material Safety Data Sheet properly.

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**2. INTERIM STORAGE: Design, construct and operate cyanide trans-shipping depots and interim storage sites to prevent releases and exposures.**

*Transport Practice 2.1: Store cyanide in a manner that minimizes the potential for accidental releases.*

The operation is **X in full compliance with**  
 in substantial compliance **with Transport Practice 2.1**  
 not in compliance with

*Summarize the basis for this Finding/Deficiencies Identified:*

The Samsung C & T Corporation identified interim storage areas in Turkey Supply Chain as below.

- 1) Pusan New Port in Korea and Mersin Port in Turkey
- 2) Trans-loading and storage facility in Mersin Tarsus Organize Sanayi Bolgesi in Turkey

The Samsung C & T Corporation completed the due diligence investigation for Pusan New Port in Korea and Mersin Port in Turkey from March to September, 2017.

The due diligence investigation was conducted on site including web-site checking for those ports, national port agency and shipping company. They found the interim storage areas in Ports were controlled properly in compliance with legal requirements and ICMC code requirements. It delivered the sodium cyanide handling manual as pocket book to ports and shipping company.

The trans-loading and storage facility in Mersin Tarsus Organize Sanayi Bolgesi in Turkey was controlled by subcontractor, Unico Logistics. The Samsung C & T Corporation conducted subcontractor evaluation in March, 2017 and chose the Unico Logistics for the operation of trans-loading and storage facility in Mersin Tarsus Organize Sanayi Bolgesi in Turkey.

In March, 2017, the Samsung C&T Corporation have conducted the due diligence investigation for trans-loading and interim storage facility controlled by Unico Logistics. According to the results of subcontractor evaluation and due diligence investigation, the Samsung C&T Corporation found the trans-loading and interim storage area was properly controlled in compliance with legal requirement and ICMC code requirements. The Samsung C&T Corporation delivered the sodium cyanide handling manual as pocket book to Unico Logistics.

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**3. EMERGENCY RESPONSE: Protect communities and the environment through the development of emergency response strategies and capabilities**

*Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases.*

**The operation is**  **in full compliance with** **with Transport Practice 3.1**  
 in substantial compliance  
 not in compliance with

*Summarize the basis for this Finding/Deficiencies Identified:*

The Samsung C&T Corporation established emergency response plan considering the possible emergency situations as sodium cyanide release to road, land, surface water and sea water, robbery during transportation and interim storage areas. The emergency response plan considered the solid sodium cyanide packaged in film and box and transported in container, transportation method, interim storage areas, infrastructure as road condition, ports and marine transportation. In the emergency response plan, they defined what they should do, communication channel and relevant external responders such as sodium cyanide manufacture, transporters, shipping company, mining customers, safety agency, police and hospitals. Detail emergency response plans considering road transportation were already prepared by transporters and checked by Samsung C&T Corporation. The Samsung C&T Corporation checked that shipping company issued commitment to comply with IMDG Code in which the emergency response plan required. For interim storage areas such as ports, trans-loading and interim storage facility they informed the emergency response plan and MSDS of sodium cyanide in which handling and treatment for released sodium cyanide defined.

*Transport Practice 3.2: Designate appropriate response personnel and commit necessary resources for emergency response.*

**The operation is**  **in full compliance with** **with Transport Practice 3.2**  
 in substantial compliance  
 not in compliance with

*Summarize the basis for this Finding/Deficiencies Identified:*

The Samsung C & T Corporation has implemented the training two times per year for their team members and relevant subcontractors related to the emergency response plan and cyanide handling manual. The emergency response plan updated communication channel, duties of relevant external agency, main activities of Samsung C & T Corporation, the use of personnel protective equipment, first aid and control method of released sodium cyanide were trained to related employees in March, 2017 and related records were maintained. The training related to emergency response plan and cyanide handling manual was conducted in Turkey office for the employee of Samsung C & T Corporation and subcontractors in March, 2017 as well.

The roadway transporters and operator of trans-loading and interim storage facility have trained their employee and vehicle operators as yearly training program. The Samsung C & T Corporation did not provide emergency response trainings directly to vehicle operators. Instead, It checked the implementation of emergency response training by roadway transporters and operator of trans-loading, and interim storage facility during subcontractor evaluations and due diligence investigation.

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*Transport Practice 3.4: Develop procedures for remediation of releases that recognize the additional hazards of cyanide treatment chemicals.*

The operation is  **X in full compliance with**  
 in substantial compliance **with Transport Practice 3.4**  
 not in compliance with

*Summarize the basis for this Finding/Deficiencies Identified:*

The Samsung C&T Corporation prepared the emergency response plan appropriate to overall emergency situations possibly expected in Turkey Supply Chain. The remediation as recovery and protection for released sodium cyanide, decontamination of soil and water, control and disposal of wastes, etc. were defined in the emergency response plan and MSDS. The prohibit of the use of sodium hypochlorite, ferrous sulfate and hydrogen peroxide to treat sodium cyanides that have been released into surface water was defined. The emergency response plan and MSDS were informed to roadway transporters, operator of trans-loading and interim storage facility, shipping company and ports.

According to the due diligence investigation, the operator of trans-loading and interim storage facility Unico Logistics and the roadway transporter TO-PET A.S. in Turkey have maintained emergency response plan in which the remediation as recovery and protect for released sodium cyanide, decontamination of soil and water, control and disposal of wastes and the prohibit of the use of sodium hypochlorite, ferrous sulfate and hydrogen peroxide to treat sodium cyanide that has been released into surface water was defined.

*Transport Practice 3.5: Periodically evaluate response procedures and capabilities and revise them as needed.*

The operation is  **X in full compliance with**  
 in substantial compliance **with Transport Practice 3.5**  
 not in compliance with

*Summarize the basis for this Finding/Deficiencies Identified:*

According to hazardous chemical transportation manual, the Samsung C & T Corporation established emergency response plan and updated the contact information and detail process with the reflection of changes in March, 2017 to include the detail mining customers and sites in Turkey Supply Chain. The Samsung C & T Corporation should do the mock emergency drill once per a year. The mock emergency drill was implemented in their Korea office during March, 2017. It checked the overall process and adequacy of emergency response plan and recorded the results. The training related to emergency response plan was conducted in Turkey office for the employee in local office of Samsung C & T Corporation and subcontractors in March, 2017 as well.

After the mock drill and training in March, 2017, it updated and changed communication channel in emergency response plan to reflect the changes as detail mining customers and sites in Turkey Supply Chain.

According to the due diligence investigation, the operator of trans-loading and interim storage facility Unico Logistics and the roadway transporter TO-PET A.S. in Turkey have checked the emergency response plan periodically and revised the contact information and detail process with the reflection of changes for transportation routes. They conducted the mock emergency drill periodically and checked the overall process and adequacy of emergency response plan. And also they have evaluated and revised the emergency response plan.

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## Summary Report of Due Diligence Investigations

### 1. Background of due diligence investigation

1) Inability as consigner for shipping company, roadway transporter and operator of trans-loading and interim storage facility in Turkey lead to ICMC implementation and certification

The Turkey Supply Chain includes sodium cyanide road transporters, shipping company and operator of trans-loading and interim storage facility in Turkey as below.

- (1) Sodium cyanide manufacture: TaeKwang Industrial Co., Ltd. Ulsan Plant in Korea.
- (2) Roadway transportation by truck from sodium cyanide manufacture in Ulsan Plant to Pusan New Port in Korea : Sebang Co., Ltd. and Hae Dong Logistics
- (3) Marine transportation from Pusan New Port in Korea to Mersin Port in Turkey : MSC
- (4) Roadway transportation from Mersin Port to trans-loading and interim storage facility in Mersin Tarsus Organize Sanayi Bolgesi and customer mining sites in Turkey : TO-PET A.S.
- (5) Operation of trans-loading and interim storage facility in Turkey : Unico Logistics

As consigner the Samsung C&T Corporation controls overall Turkey Supply Chain and will choose ICMC certified subcontractors or lead the ICMC implementation and certification to sodium cyanide manufacture, roadway transporter, ports and shipping company. So they successfully have chosen ICMC certified subcontractors as TaeKwang Industrial Co., Ltd., Sebang Co., Ltd. and Hae Dong Logistics.

However they can't choose the ICMC certified ports, shipping company, roadway transporter and operator of trans-loading and interim storage facility in Turkey. They can't lead the ports, shipping company, roadway transporter and operator of trans-loading and interim storage facility in Turkey to ICMC implementation and certification due to their inability to affect the operating practices of those transportation facilities and companies. However the roadway transporter TO-PET A.S. is currently ICMC signatory but not certified yet.

So the Samsung C&T Corporation planned and implemented the due diligence investigation for ports, shipping company and roadway transporter and operator of trans-loading and interim storage facility in Turkey as required by ICMC.

2) Scope of due diligence investigation

The due diligence investigation was implemented for Pusan New Port in Korea, shipping company MSC, Mersin Port in Turkey, road transporter TO-PET A.S. and operator of trans-loading and interim storage facility Unico Logistics in Turkey.

### 2. Progress of due diligence investigation

1) Development of checklist

The Samsung C&T Corporation reviewed the ICMC requirements, IMDG Code, Turkey Supply Chain, property of sodium cyanide and information from TaeKwang Industrial Co., Ltd. It has developed checklist for due diligence investigation applicable to the control of sodium cyanide in interim storage areas, marine transportation and roadway transportation.

2) Nomination of investigation team leader and member

Considering the work experience and knowledge of ICMC, General Manager of Fine & Specialty Chemicals Team nominated team leader and member for due diligence investigation as below;

- Team Leader: Mr. Gregory Jung / Assistant Manager of Samsung C&T Corporation  
Mr. Sun In Jung / Assistant Manager of Samsung C&T Corporation
- Team Member: Mr. Tae Gyun Kim / Assistant Manager of Samsung C&T Corporation  
Mr. Selman Turac / Manager of Istanbul Office of Samsung C&T Corporation in Turkey

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3) Scheduling of due diligence investigation

It planned the due diligence investigation for Pusan NewPort in Korea, shipping company MSC, roadway transporter TO-PET A.S. and operator of trans-loading and interim storage facility Unico Logistics in Turkey from March to September, 2017..

4) Implementation of due diligence investigation

The Samsung C&T Corporation implemented due diligence investigation as planned from March to September, 2017. It used the checklist and recorded the investigation results in checklist. After the investigation, it issued the completed checklist to ports, shipping company, roadway transporter and operator of trans-loading and interim storage facility and requested corrective actions for some nonconformities. The Samsung C&T Corporation checked the action results and confirmed that corrective actions for the nonconformities were completed.

**3. Results of due diligence investigation**

The Samsung C&T Corporation have developed and used the checklist for due diligence investigation. And record the investigation results in checklist.

1) Pusan New Port in Korea including shipping company MSC

(1) Due diligence investigation results

Investigation Area: Storage, loading, unloading and marine transportation activities

Investigation Item: Storage area control, responsible personnel, emergency plan, mock drill, equipment control and training

Investigation Date: 05 and 19 September, 2017

(2) Conclusion

According to the due diligence investigation results, the Samsung C&T Corporation concluded that the Pusan New Port and shipping company MSC comply with ICMC, IMDG, and national legal requirements.

2) Mersin Port in Turkey

(1) Due diligence investigation results

Investigation Area: Storage, loading and unloading activities

Investigation Item: Storage area control, responsible personnel, emergency plan, mock drill, equipment control and training

Investigation Date: 08 March, 2017

(2) Conclusion

According to the due diligence investigation results, the Samsung C&T Corporation concluded that the Pusan New Port comply with ICMC and national legal requirements.

3) Roadway transportation in Turkey

(1) Due diligence investigation results

Investigation Area: Control of roadway transportation by transporter TO-PET A.S.

Investigation Item: Roadway transportation control, equipment control, responsible personnel, emergency plan, mock drill and training

Investigation Date: 09 March, 2017

(2) Conclusion

According to the due diligence investigation results, the Samsung C&T Corporation concluded that the TO-PET A.S. comply with ICMC and national legal requirements.

Samsung C&T Corporation 09 January 2018

Name of Supply Chain Operator

Lead Auditor Signature

Date

4) Roadway transportation in Turkey

(1) Due diligence investigation results

Investigation Area: Control of trans-loading and interim storage facility by Unico Logistics

Investigation Item: Trans-loading and interim storage facility control, equipment control, Responsible personnel, emergency plan, mock drill and training

Investigation Date: 09 March, 2017

(2) Conclusion

According to the due diligence investigation results, the Samsung C&T Corporation concluded that the Unico Logistics comply with ICMC and national legal requirements.

**4. Review of the due diligence investigation results by ICMC audit team**

During the ICMC certification audit in September, 2017 for Turkey Supply Chain, the auditor Mr. Do-Sik Yoon reviewed the due diligence investigation process and the results implemented by Samsung C&T Corporation.

The due diligence investigations included the storage yard in ports, marine transportation, roadway transportation and operation of trans-loading and interim storage facility in Turkey.

The Samsung C&T Corporation comprehensively implemented the due diligence investigations for the ports, marine transportation and roadway transportation and operation of trans-loading and interim storage facility in Turkey as below;

- Study and develop checklist applicable to sodium cyanide storage and transportation.
- Nominated competent personnel as due diligence investigation team leaders and members.
- Implement due diligence investigation with checklists and record the results.
- Issue corrective actions for a few nonconformities identified during the due diligence investigation.
- Checked corrective action results

The audit team finally concluded that the due diligence investigations for Turkey Supply Chain implemented by Samsung C&T Corporation were comply with ICMC requirements.

Samsung C&T Corporation 09 January 2018

Name of Supply Chain Operator

Lead Auditor Signature

Date