

## ESAD CS - Questionnaire & Guidelines - English version - March 2011

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Item N°	Question	Guideline
1	<b><u>Introduction</u></b>	<b><u>Introduction</u></b>
	<p>For distributors handling chlorinated solvents, this originally called "Appendix C" assessment form shall apply in addition to the assessment form for "Distributor Standard Activities" and the relevant parts of the "Site Assessment" form.</p>	<p>These guidelines are provided for consideration by chlorinated solvent producers and distributors as a way to implement Responsible Care® continuous improvement initiatives. No agreement requiring the use of any particular distribution arrangements shall be inferred from these guidelines, and producers and distributors are encouraged to consult with their own legal counsel regarding appropriate language for their agreements.</p> <p><b><u>Purpose</u></b></p> <p>Chlorinated solvents have specific hazard characteristics such as risk of ground / water pollution and possible long term irreversible health effects. They are subject to public concern and numerous special regulations within the European Union and member states. This and their wide use in non chemical industries creates the need to strongly emphasise "Product Stewardship" principles covering the suppliers responsibility to avoid chlorinated solvent misuse and to promote their safe and proper application over the total life cycle.</p> <p>The SQAS Distributor / ESAD II assessment document does not cover in its general sections ("Standard Activities" and "Site Assessment") all special needs for a safe use and handling of chlorinated solvents all along the supply chain. Therefore, this section shall address the additional special requirements and care needed to assure RESPONSIBLE CARE compliance over the whole distribution chain of chlorinated solvents in order to enhance their acceptance by society and their sustainability.</p> <p><b><u>Scope</u></b></p> <p>This section only covers the chlorinated solvents perchloroethylene (PER), trichloroethylene (TRI) and dichloromethane (DCM) (synonym of Methylene Chloride). It focuses on additional requirements not covered by the general sections ("Standard Activities" and "Site Assessment") of the ESAD II assessment. Companies involved in the distribution of chlorinated solvents shall comply in minimum to the following ESAD II parts: "Standard Activities", "Site Assessment" (relevant sections) and this section, previously called Appendix C.</p>

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2.	<b>Product Stewardship</b>	<b>Product Stewardship</b>
	<b>SUPPLY CHAIN</b>	<b>SUPPLY CHAIN</b>
2.1.	<b>Does the distributor undertake maximum efforts to ensure compliance with Product Stewardship principles along the entire supply chain ?</b>	<b>Does the distributor undertake maximum efforts to ensure compliance with Product Stewardship principles along the entire supply chain ?</b>
		<p>Distributors are responsible for the application of these ESAD II guidelines down the entire distribution chain (including potential sub-distribution) and shall undertake maximum efforts to ensure compliance with the RESPONSIBLE CARE principles down to the end-user (specifically regarding the product and application specific information transfer).</p> <p>2.1.1/3 : The distributor shall undertake maximum efforts to identify and record the intended application[1]. He shall maintain customer information including the volume and a proper description of the end-use application for each chlorinated solvent account. The distributor shall provide this information to suppliers when requested for specific product stewardship initiatives.</p> <p>[1] Application information shall clearly identify the use of the solvent and not only give the industry sector to describe the application.</p> <p>The distributor shall not knowingly sell chlorinated solvents to</p> <p>1) any customer who:</p> <ul style="list-style-type: none"> <li>- intends an unsafe or improper end-use application or</li> <li>- does not maintain adequate equipment or procedures for the safe storage, handling, use and disposal of chlorinated solvents</li> <li>- and is not willing to take suggested corrective measures.</li> </ul> <p>2) any sub-distributor who is not willing to apply these guidelines.</p> <p>Check for procedure(s), working instructions, database(s), role descriptions, contracts, etc which give evidence of above.</p>
2.1.1a	Is a system / procedure in place to identify the customer product applications ? (Applications not disclosed by customer should be recorded as such.)	

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2.1.1b	Is relevant application information (especially volume and proper description of the end-use) recorded in this system for each chlorinated solvents account ?		
2.1.1c	Is this information available to support specific Product Stewardship initiatives of the suppliers ?		
2.1.1d	(Trichloroethylene Specific) Does the distributor ask its customer to sign a declaration of conformity confirming that trichloroethylene will be used only in closed equipment and is this recorded for each account?	<p>Look for written evidence that for customers of trichloroethylene the applications of trichloroethylene are checked. Do they have a list of customers that buy trichloroethylene for metal parts cleaning?</p> <p>Look for a letter or any other evidence that the distributor has sent out the declarations to all customers that have been identified to use trichloroethylene in metal-cleaning and evidence that the declarations of conformity have been signed are stored.</p> <p>If trichloroethylene is sold via sub-distributors verify if the sub-distributors are asked to forward the Charter and if they confirmed to keep records of the signed declarations of their customers.</p>	
2.1.2.	Is a procedure in place which checks for obvious non-compliance to REACH (misuse or unsafe use, handling or disposal of chlorinated solvents), and which asks for corrective measures ?		
2.1.3.a	Is a procedure in place to avoid delivery of chlorinated solvents in case of obvious serious non-compliance to REACH (misuse or unsafe use, handling or disposal) and customer refusal to take corrective measures ?		
2.1.3b	Is a procedure in place to avoid delivery of trichloroethylene to customers who have not committed to the declaration of conformity?	Look for a written instruction or any other evidence that customers of trichloroethylene using it in metal-cleaning that have not signed the declaration of conformity by December 31, 2010 will not receive trichloroethylene. This can be a list of these customers, an automatic block in the computer system, etc.	
2.1.4.	Does the distributor - upon supplier request - offer special services to facilitate safe handling, use, and disposal of chlorinated solvents ?	Distributors shall provide to their chlorinated solvents customers any reasonable special services which Supplier(s) might request in order to facilitate the safe handling, use, and disposal of chlorinated solvents. Such special services may include, for example, the provision of tools, equipment, or recycling services.	

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2.1.5a	Are customers supplied in addition to SDS with other SHE information (eg. technical guidelines) important to ensure proper and safe handling, use and disposal of chlorinated solvents by customers ?	2.1.5a/c : Distributors shall have a system in place to ensure dissemination of updated product safety, health, and environmental information to their customers. Dissemination of important literature (e.g. Safety Data Sheets (SDS) and ECSA (European Chlorinated Solvents Association) or producer handling guidelines) shall take place at the time of any initial product distribution. Dissemination of SDS shall be repeated periodically thereafter. Up-dates of important literature shall automatically trigger a new dissemination.	
2.1.5b	Is a procedure in place to ensure that letters with important SHE information sent by the supplier to the distributor for distribution to current chlorinated solvent users, is despatched in a timely manner ?	Records of SDS dissemination and preferably also the dissemination of all additional important product safety, health, and environmental information or literature shall be recorded. SDS dissemination records should, in an optimal set-up, include proof of receipt by the customer. System(s) in place shall give evidence of above.	
2.1.5c	Is the dispatch of the SDS and other SHE information recorded ?	<p>For the safe use of chlorinated solvents, the availability of up-to date product Safety Datasheets (SDS) at all current end-users is of prime importance. The standard requirements which shall all be fulfilled for distributing chlorinated solvents are covered by Di-4.5.1 to Di-4.5.5 and Di-4.6.1 of the "Standard Distributor Activities" section. It includes the requirements that the distributor shall have a system for SDS dissemination in place, which ensures :</p> <ul style="list-style-type: none"> <li>- timely dissemination of SDS to new end-users, in order to have SDS available when product use starts</li> <li>- timely dissemination of revised SDS versions to current end-users (time frame for dissemination of revisions may be given by legislation)</li> <li>- dissemination of SDS in local language</li> <li>- the despatch of the SDS is recorded by addressee and date</li> <li>- the desirable option to re-send SDS to current customers on a periodic basis</li> </ul> <p>Given the specific hazards of chlorinated solvents and the potential serious risks if not properly handled, the following additional, more stringent requirements are asked for:</p> <ul style="list-style-type: none"> <li>- the system shall include the option to re-send SDS periodically and the distributor should use this option</li> <li>- proof of receipts from SDS recipients should be recorded.</li> </ul>	

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		<p>Beside the availability of up-to date SDS at end-users it is also important to make sure that users of chlorinated solvents have all important additional up-to date product information from producers (e.g. overall product Stewardship guidelines or specific guidelines like for safe handling and storage,) available. This is essential to allow customers to use, handle, store and dispose of chlorinated solvents in a safe way. Local language is desirable (especially for important documents like Safety and Environmental Guidelines e.g. issued by ECSA or suppliers) but not mandatory as for SDS. These requirements are also covered in Di-4.5.7. Because of the essential importance of these requirements for a safe use of chlorinated solvents, the auditor shall check if the questions Di-4.5.7 are specifically fulfilled regarding chlorinated solvents. In addition, distributors shall respond in a timely manner to all special requests of the supplier to despatch special SHE information issues. All this literature dissemination should be preferably recorded.</p>	
2.1.6.	In addition to the despatch procedure for SHE information, does the company have additional procedures in place to actively urge and advice customers (e.g. during customer contacts) about :	Distributors shall strongly urge users to handle, store, use and dispose of chlorinated solvents in a safe way. Distributors shall inform and advise end-users about the specific risks of chlorinated solvents, their duty to monitor workforce exposure, the need to care for safe use, storage and handling and the obligation to care for proper waste disposal. Furthermore the end-user has to be informed about state of the art possibilities to use, handle and store chlorinated solvents safely e.g. in closed loop systems and the distributor shall urge their use. Procedure(s) in place shall give evidence of above.	
2.1.6a	- the necessity to properly monitor worker exposure to chlorinated solvents ?		
2.1.6b	- the need to handle and store chlorinated solvents in a safe way using best practice and "state of the art" techniques ?		
2.1.6c	- proper waste disposal and the need and obligation to follow it ?		

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2.1.7.	Does the distributor offer and recommend "state of the art" technique for the safe handling, filling, transport and take back of chlorinated solvents e.g. by supplying safety containers or equivalent closed loop systems ?	Closed loop systems or safety containers include equipment such as fix connections for liquid transfer to avoid spills / leakages, vapour return lines to minimize air emissions, appropriate control equipment to avoid overfilling, double walled IBC or safety drum container	
2.1.8.	Does the distributor ensure state of the art transport, handling, use and emission free transfer and take back of trichloroethylene by the supply of safety container systems?	Look for evidence that the supply of trichloroethylene is changed from drums to safety container systems with the following equipment: Fix connections for liquid transfer to avoid spills / leakages Vapour return lines to minimize air emissions Appropriate control equipment to avoid overfilling <u>Double walled IBC or safety drum container</u>	
2.1.9.	Exceeding the general requirements on incident reporting, is a procedure in place to record and document any incidents with chlorinated solvents, including incidences at customer sites which become known to the distributor ?	2.1.9/10 : Distributors shall promptly notify the appropriate supplier(s) of any accident or incident involving the storage, handling, transportation, or disposal of chlorinated solvents at their site or any incidents with chlorinated solvents at customer sites they get knowledge of. Distributors shall also cooperate with any remedial instructions or recommendations that Supplier(s) might provide in such circumstances. Procedure(s) in place shall give evidence of above.	
2.1.10.	Is a procedure in place to promptly report any incidents with chlorinated solvents (including known customer ones) to the supplier(s) and is the distributor prepared to cooperate with any remedial instructions or recommendations that the Supplier(s) might provide ?		
2.1.11.	Is a procedure in place to ensure advice to customers regarding the specific requirements of chlorinated solvents and their proper use and application ?	Distributors are responsible to advise their customers on proper end uses and applications of chlorinated solvents as defined by legislation, guidelines, product safety, health, and environmental information literature, and as defined by the supplier. In this respect, distributors have to make users aware about the use of the "state of the art technologies" which help to ensure safe handling of chlorinated solvents at an end-user level (i.e. closed loop safety handling systems, appropriate hard piped solvent distribution systems, transfer over secured ground with minimised emissions). Procedure(s) in place shall give evidence of above.	

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2.1.12.	Is a system in place to allow full product traceability also in cases where sub-distributors are involved ?	PRODUCT TRACEABILITY : Distribution records shall be kept for all shipments of chlorinated solvents, including as a minimum product name, lot number (if available), name and location of receiving party, quantity, carrier and date of shipment. For shipments of products repacked at the distributor site the repackaging date shall be recorded in addition. Furthermore filling of bulk-tanks shall be traceable (e.g. records of product name, lot number, supplier, carrier, date). In case of delivery through sub-distributors, all distribution parties shall be committed to follow above rules. Procedure in place shall give evidence of above.
	<b>CONTRACTORS MANAGEMENT</b>	<b>CONTRACTORS MANAGEMENT</b>
2.2.	Is it ensured that contractor companies are also following Product Stewardship guidelines relevant to their operations ?	Is it ensured that contractors are following Product stewardship guidelines relevant to their operations ?
		Distributors shall check that contractors are operating according to the relevant requirements of these guidelines.
2.2.1.	Do the safety and quality criteria for contractor (sub-distributor and/or logistics service provider) selection and assessment reflect the specific requirements for chlorinated solvents ?	2.2.1/2 : Distributors shall have a carrier selection process to ensure, for the transport of any chlorinated solvent, that their carriers comply with applicable laws and regulations, the spirit of the Product Stewardship Principles and with the relevant ESAD assessment guidelines. It is important that the requirements of the ESAD appendix "Chlorinated Solvents" are part of the quality criteria for the carrier selection. Existing SQAS assessments as far as applicable shall be taken into account. Procedure(s) or systems(s) in place shall give evidence of above.
2.2.2.	Are the selection and assessment results for major contractors (sub-distributor and/or logistics service provider) open to the supplier ?	
3.	<b>General Characteristics of the distribution chain</b>	<b>General Characteristics of the distribution chain</b>
	<b>SAMPLING</b>	<b>SAMPLING</b>
3.1.	Is there a procedure in place to ensure safe sampling of chlorinated solvents by taking in account their specific risks for environment and human health ?	Is there a procedure in place to ensure safe sampling of chlorinated solvents by taking in account their specific risks for environment and human health?

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3.1.1.	Are appropriate sample containers and appropriate sampling equipment in use ?	Aluminium in any form shall not be used as material of construction neither for sampling equipment nor for containers and/or closures. Brown glassware with solvent resistant sealant is recommended for sample containment.	
3.1.2.	Is sampling performed in appropriate areas only ?	Chlorinated solvents have a special risk for ground and ground water pollution. They may penetrate through concrete. Therefore sampling shall only take place in areas where there is proper ground protection using approved chlorinated solvent resistant materials is (For details on materials refer to ECSA technical document “Storage and Handling of chlorinated solvents”). Due to the high volatility and the high vapour density of chlorinated solvents, sampling shall only take place in good ventilated and non-confined areas where solvent vapours cannot accumulate.	
3.1.3.	Are the specific safety rules followed and are people properly trained ?	Sampling shall only be done by people who are sufficiently trained on the specific properties and risks of chlorinated solvents by respecting occupational exposure limits and the need for minimised emissions.	
	<b>TRAINING</b>	<b>TRAINING</b>	
3.2.	<b>Is the training of employees on specific knowledge regarding chlorinated solvents ensured ?</b>	<b>Is the training of employees on specific knowledge regarding chlorinated solvents ensured?</b>	
		Distributors shall be knowledgeable about general principles of product stewardship and be familiar with chlorinated solvents specific safety, health, and environmental information / literature, including warning labels, product Safety Data Sheets (SDS) or local equivalent, commonly available from suppliers and trade associations (e.g. ECSA).	
3.2.1.	Has a chlorinated solvent specialist, acting as the focal point, been appointed in the company ?	3.2.1/3 : Distributors shall appoint at least one employee as technical expert, who acts as a focal point internally as well as externally. Distributors shall train all their relevant employees enabling them :	
3.2.2a	Have all employees handling chlorinated solvents received a specific training on the specific requirements of chlorinated solvents ?	- to handle and store chlorinated solvents safely in order to comply with all legal requirements and to be in compliance with professional guidelines. The training shall make reference to product environmental information literature as provided by the supplier(s), trade associations, and other recognised sources.	



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3.2.2b	Is the training package making use of specific technical guidelines for safe handling and storage of chlorinated solvents issued e.g. by ECSA or the supplier(s) ?	- to give advice to customers on safe handling, storage, use and disposal of chlorinated solvents.	
3.2.3.	Are the sales staff and are technical service staff trained to give advice on safe handling, use, storage, disposal of chlorinated solvents and the associated "state of the art" technology ?	The training shall be based on up-to date information and shall be recorded.	
3.2.4a	Is the 24h emergency service also available for emergency situations at customer sites involving chlorinated solvents without being directly linked to the distributor activity ?	The company shall have appropriate twenty-four hour emergency plans consistent with governing regulations for on-site activities and be able to give help to customers for all emergency situations at customer sites involving chlorinated solvents.	
3.2.4b	Have all persons, providing the 24h emergency service, been properly trained on the specific requirements for chlorinated solvents in emergency situations ?	Distributor employees need to be trained and prepared to respond to emergency situations involving the storage, handling, transportation, disposal, or use of chlorinated solvents at their own site and to support customers in similar situations.	
<b>4.</b>	<b><u>Legal requirements and important guidelines</u></b>	<b><u>Legal requirements and important guidelines</u></b>	
		<p>Distributors shall be knowledgeable about and follow all applicable laws and regulations governing the storage of chlorinated solvents in the regions they are active in. In addition, distributors shall be knowledgeable about and follow relevant important guidelines and information that may be provided by the supplier or ECSA regarding the proper procedures for safe storage of chlorinated solvents (e.g. ECSA technical documents).</p> <p>The distributor shall have an accessible library containing above information related to chlorinated solvents. The information shall be kept up to date. For this, the distributor shall have a person or a source assigned to keep abreast of legislation <b>and</b> guideline developments. In addition to impact assessment of legislative developments (see Di-1.2.2), also relevance, importance and impacts of new/changed guidelines or supplier information shall be assessed.</p> <p>Check library for content related to chlorinated solvents and for means to ensure that legislation and important guidelines are followed.</p>	

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4.1.	<b>Is the distributor aware of current legislation and important guidelines relevant to chlorinated solvents ?</b>	<b>Is the distributor aware of current legislation and important guidelines relevant to chlorinated solvents ?</b>
4.1.1.	Does the distributor's library of relevant SHE regulations include important guidelines relevant to chlorinated solvents e.g. issued by ECSA or the supplier(s) ?	
4.2.	<b>Does the company have a means of ensuring that it keeps abreast of new or changed guidelines regarding chlorinated solvents in addition to the legislative developments ?</b>	<b>Does the company have a means of ensuring that it keeps abreast of new or changed guidelines regarding chlorinated solvents in addition to the legislative developments ?</b>
4.2.1.	Is a person designated or a source defined to keep the company abreast of new or changed guidelines concerning chlorinated solvents ?	
4.2.2.	Are the responsibilities for assessing the impact of legislative requirements and for proposing actions to comply with these, also considering the above guidelines and supplier information relevant to chlorinated solvents ?	
5.	<u>Storage</u>	<u>Storage</u>
	<b>DESIGN AND CONSTRUCTION OF EQUIPMENT</b>	<b>DESIGN AND CONSTRUCTION OF EQUIPMENT</b>
5.1.	<b>Is the basic design and the construction of equipment adequate to the special needs of chlorinated solvents ?</b>	<b>Is the basic design and construction of equipment adequate for the special needs of chlorinated solvents ?</b>

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5.1.1.	Do tanks for chlorinated solvents have a double wall or are they erected in a retention basin of adequate design (made of chlorinated solvent tight material and with sufficient retention capacity) ?	5.1.1/3 : Because of their high specific gravity and low surface tension, chlorinated solvents need special care to avoid ground contamination and structural damage. Tanks shall be of suitable design and material, visibly in good condition and well maintained. They shall have a double wall or erected in a chlorinated solvent tight basin of adequate design, material and retention capacity. Wall thickness measurements shall be done on a regular base. For double wall tanks it is recommended to monitor wall space for leakage detection. For details refer to ECSA technical document "Storage and Handling of chlorinated solvents". A Leak detection alarm device shall be installed.	
5.1.2.	Are wall thicknesses measured on a regular basis ?		
5.1.3.	Is a leak detection alarm device installed ?		
5.1.4.	Are tanks equipped with an appropriate nitrogen pad or air dryer system ?	Tanks need to be equipped with a nitrogen pad or air dryers. These should be preferably independent systems.	
5.1.5.	Are tanks equipped with an appropriate level measurement system and /or overflow alarm ?	Tanks have to have site level measurements , which are protected against potential damage to avoid overfilling.	
5.1.6.	Has an explosion risk assessment for TRI and DCM been made and documented ?	TRI and DCM have like PER no flash point according to standard methods. But contrary to PER they have in air explosive limits and require explosion risk evaluation. This risk evaluation shall however take into account that compared to flammable solvents DCM and TRI need very high ignition energies. Installation of electrical equipment for tanks shall take into account the results of the explosion risk evaluation.	
5.1.7.	Are packaged chlorinated solvents (with exception of such in Safety Containers ) stored in adequate ground protected areas only ?	Packed material shall only be stored in areas where contamination of the ground is protected, unless special safety packaging (e.g. double walled safety containers) are used. For details on adequate ground protected areas, refer to the ECSA technical document "Storage and Handling of chlorinated solvents".	
<b>6.</b>	<b>Repackaging /Handling</b>	<b>Repackaging / Handling</b>	
	<b>DESIGN AND CONSTRUCTION OF EQUIPMENT FOR REPACKAGING</b>	<b>DESIGN AND CONSTRUCTION OF EQUIPMENT FOR REPACKAGING</b>	
6.1.	Are adequate precaution measures in place to protect workers and to avoid ground and ground water pollution ?	Are adequate precaution measures in place to protect workers and to avoid ground and ground-water pollution ?	

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6.1.1.	Is the area and the equipment for repackaging properly designed and made of suitable material ?	<p>6.1.1/4 : Because of their high specific gravity and low surface tension, chlorinated solvents and chlorinated solvent containing waste request special care to avoid ground contamination and structural damage. Areas and equipment for repackaging shall be of suitable design and material, visibly in good condition and well maintained. Adequate precautionary measures have to be taken to protect workers and to avoid ground and ground water pollution. Repackaging has to be done only over adequately protected ground. For details on adequate ground protected areas, refer to the ECSA technical document “Storage and Handling of chlorinated solvents”.</p> <p>6.1.5/7 : Furthermore repackaging into drums and containers shall be done with appropriate exposure control assuring compliance with exposure limits. To minimise air emissions, preferably a closed vapour system (vapour return line) or a vapour adsorption system should be used. To avoid overfilling, appropriate control equipment need to be installed. For details refer to ECSA technical document “Storage and Handling of chlorinated solvents” Also, since TRI and DCM have explosive limits in air an explosion risk evaluation is required for refilling operations as it is for storage (see 5.1.6).</p>	
6.1.2.	Are the area and the equipment for repackaging visibly in good condition and well maintained ?		
6.1.3.	Is repackaging only done over adequately protected, chlorinated solvent tight ground to avoid ground contamination by spills ?		
6.1.4.	Is repackaging into drums and containers done with appropriate exposure control to ensure compliance with exposure limits ?		
6.1.5.	Is there equipment in place to prevent overfilling ?		
6.1.6.	Is repackaging into containers done using a vapour return line or a vapour abatement (e.g. adsorption) system ?		
6.1.7.	Has an explosion risk evaluation been performed and documented for repackaging activities regarding TRI and DCM ?		
	<b>CONTAINERS</b>	<b>CONTAINERS</b>	

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<b>6.2.</b>	<b>Are suitable packaging materials used and are state of the art technologies for safe handling at the customer site encouraged ?</b>	<b>Are suitable packaging materials used and are "state of the art" technologies for safe handling at the customer site encouraged ?</b>	
6.2.1.	Are the containers used for repackaging or product delivery made of material which is tight and diffusion resistant to and compatible with chlorinated solvents ?	Containers shall be made of material which is compatible with and resistant to chlorinated solvents and which presents a diffusion barrier. Most of today's generally used plastic containers are regarded as not suitable as long as their suitability has not been specially proven.	
6.2.2.	Is there a policy not to use reconditioned metal drums ?	Reconditioned metal drums are not recommended for use with chlorinated solvents. Undiscovered material defects could increase the risk for spills.	
6.2.3.	Does the distributor use safety container or equivalent closed loop systems to ensure safe handling and use of the chlorinated solvents Perchloroethylene and Trichloroethylene by customers (end-users)?	Distributors are strongly encouraged to use and promote containers which as such assure in all cases safe handling, transport and storage of the chlorinated solvents by end-users. This is of special importance if storage and handling premises and equipment at the customer site are not specifically designed for safe handling and storage of chlorinated solvents (e.g. missing ground protection measures, missing training, missing equipment preventing air emission).	
<b>7.</b>	<b>Bulk Transport and Loading / Unloading</b>	<b>Bulk Transport and Loading / Unloading</b>	
	<b>EQUIPMENT [TRUCKS, RAIL CARS, HOSES, PUMPS]</b>	<b>EQUIPMENT [TRUCKS, RAIL CARS, HOSES, PUMPS]</b>	
<b>7.1.</b>	<b>Is equipment in place and used to ensure safe transport and low emission and safe loading and unloading of bulk chlorinated solvent deliveries ?</b>	<b>Is equipment in place and used to ensure safe transport and low emission and safe loading and unloading of bulk chlorinated solvent deliveries ?</b>	
7.1.1.	Are unloading and loading installations for bulk delivery designed to allow loading / unloading using a vapour return line or a vent abatement system ?	Emissions of chlorinated solvents and worker exposure need to be minimized. Tank cars should be preferably equipped to allow loading and unloading using a closed vapour system or a vapour abatement system (e.g. carbon adsorption).	
7.1.2.	Are the drivers specially trained on the particular product properties and the precautions required for chlorinated solvents ?	Because of the same reasons as described in Cs-7.1.2, drivers have to be made specially aware of the specific product properties of chlorinated solvents and the necessary precautions required. Drivers must be specially trained. Training dates shall be recorded.	

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7.1.3.	Is suitability of hoses checked before any unloading operation ?	<p>7.1.3/6 : Pumps and hoses including those at the distributor site and those in use at customer sites, shall be compatible with chlorinated solvents, fitted with proper flanges / couplings and shall be visibly in good conditions. Suitability of hoses shall be checked prior to any loading / unloading operation of chlorinated solvents. Hoses shall be regularly maintained and pressure tested. Maintenance and pressure test work shall be documented and pressure test results recorded. Aluminium, if scratched or present in fine particles may react with TRI and DCM. Therefore aluminium has to be avoided as construction material for the use with chlorinated solvents.</p>		
7.1.4.	Are distributor owned hoses (including those used for unloading at customer sites) regularly maintained and is maintenance documented ?			
7.1.5.	Do the documented and recorded pressure tests include the hoses used for discharge operations of chlorinated solvents at the customer site ?			
7.1.6.	Is there a policy not to use aluminium as a construction material for parts in contact with chlorinated solvents ?			
<b>LOADING / UNLOADING OPERATIONS</b>				<b>LOADING / UNLOADING</b>
7.2.	<b>Are procedures in place to ensure low emission and safe transfer of chlorinated solvents during loading / unloading operations at distributor and customer site?</b>			<b>Are procedures in place to ensure low emission and safe transfer of chlorinated solvents during loading / unloading operations at distributor and customer site ?</b>
7.2.1.	Is a procedure in place to ensure that hoses are fully drained and capped after use ?	<p>7.2.1/4 : The distributor shall have procedures in place and in use covering the following important requirements to avoid ground and water contamination and to minimize emissions during transport and at the distributor and the customer site during loading and unloading operations.</p> <p>- Hoses shall be fully drained and capped after use.</p>		
7.2.2.	Are all loading operations recorded together with the precautionary measures which have been taken ?			

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7.2.3.	Is a procedure in place to ensure that loading and unloading operations only take place over properly protected, chlorinated solvent tight ground ?	- Loading and unloading shall only take place over properly protected ground to catch spillage. Details on the design and materials for proper ground protection is e.g. given in The ESAD technical document on handling and Storage of chlorinated solvents.	
7.2.4.	Is a procedure in place requesting emission reduction systems (like vapour return lines or vent abatement systems) to be used during unloading or loading operations ?	- Emissions during unloading or loading shall be reduced to a minimum, using e.g. vapour return lines or a vapour abatement system (e.g. activated carbon adsorption).  - All loading operations shall be recorded together with all precautionary measures which have been taken to prevent ground or water contamination and to minimize air emissions. E.g. special care has to be taken that valves to drain retention basins are properly closed prior to the start of loading / unloading operations.	
7.2.5.	Are receiving customers made aware of specific requirements for unloading chlorinated solvents ?	Since many receiving customers of chlorinated solvents are non chemical companies, the distributor shall make sure, prior to the first unloading operation at the customer site, that the customer has been informed about and is aware of the specific hazards of chlorinated solvents and the specific requirements to properly manage all risks during unloading.	
7.2.6.	Is the distributor requesting the receiving customer, to have the responsible person of the customer present during the entire unloading operation ?	The distributor should clearly request that the responsible person at the receiving customer is present during the entire unloading operation.	
7.2.7.	Is a procedure in place ensuring that the receiving customer is requested to check all necessary precautionary measures prior to unloading ?.	The distributor should also request from the receiving customer that all necessary precautionary measures, as laid down in a valid unloading procedure, are checked prior to unloading.	
<b>8.</b>	<b><u>Packed products transport and delivery</u></b>	<b><u>Packed products transport and delivery</u></b>	
<b>8.1.</b>	<b>Are equipment and procedures in place and used to ensure safe transport of packed chlorinated solvent deliveries and their loading and unloading ?</b>	<b>Are equipment and procedures in place and used to ensure safe transport of packed chlorinated solvent deliveries and their loading and unloading ?</b>	

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Item N°	Question	Guideline	Score
8.1.1.	Is appropriate equipment (e.g. drum lifters) available or requested to be made available by the receiving customer to ensure safe loading and unloading of chlorinated solvent containers ?	Loading and unloading of chlorinated solvent containers shall be done if required with equipment and/or tools allowing to avoid any damage of the containers (e.g. drum lifters). These equipment/ tools shall be made available by the distributor or requested by the distributor to be made available by the receiving customer. Unloading of drums by dropping them on a pillow is not considered appropriate!	
8.1.2.	Are load securing tools available and used on the trucks ?	Load securing tools shall be available and used on the trucks.	
8.1.3.	Is a procedure in place to ensure proper unloading and transport of containers and to request the use of the appropriate unloading equipment ?	Written procedures for proper transport and loading / unloading operations need to be in place. These procedures shall ensure that no unsafe situations occur during the mentioned operations and specifically request the use of appropriate unloading tools as mentioned above.	
<b>9.</b>	<b><u>Waste Management</u></b>	<b><u>Waste Management</u></b>	
<b>9.1.</b>	<b>Does the Distributor take his responsibility to help customers to have chlorinated solvent waste material handled and disposed of properly ?</b>	<b>Does the distributor take his responsibility to help customers to have chlorinated solvent waste material handled and disposed of properly ?</b>	
9.1.1.	Are procedures in place giving evidence that the distributor passes all necessary information regarding proper waste disposal (e.g. received from suppliers) on to his chlorinated solvent customers ?	The distributor has the responsibility to disseminate all necessary information on proper waste disposal to end-users. Established procedures shall give evidence of that. E.g. the end-user shall be informed that landfill is not an appropriate disposal method.	
9.1.2.	Is the distributor offering retake of spent chlorinated solvents for appropriate recycling or disposal as a service ?	In order to ensure proper waste disposal it is desirable that the distributor offers a waste recovery service to end-users. He can also offer this in co-operation with the supplier and/or a waste manager.	
9.1.3.	Is the distributor offering the use of special safety container or equivalent closed loop systems for the recovery of chlorinated solvent waste ?	To ensure safe chlorinated solvent waste handling it is desirable that the distributor offers special safety containers for the recovery of the waste.	
9.1.4.	Are all waste shipments and waste recovery and disposal activities properly documented and recorded ?	It is mandatory that all shipments and waste recovery and disposal activities are properly documented and recorded. Established procedures shall give evidence of that. Because of the specific public sensitivity regarding chlorinated products, auditors shall re-check fulfilment of these general requirements specifically regarding chlorinated solvents.	