

Anora Minimum Requirement for Chemical Handling

Introduction	<p>The purpose of this document is to define the minimum requirements for handling chemicals to avoid work-related injuries from handling chemicals at Anora.</p> <p>The definition of chemical in this document encompasses any hazardous chemical (CLP regulation EY 1272/2008) or their mixtures in any state (solid, powder, liquid, gas or plasma) and can be airborne (dust, fumes, mists, vapours, gases and fibres).</p> <p>Ethanol will be handled according to Anora processes and these instructions.</p> <p>The identification of products, mixtures and hazardous chemical processes, and knowing their effects is the first step before the implementation of appropriate means of prevention.</p> <p>Chemical safety is based on general principles of prevention:</p> <ul style="list-style-type: none">• Assess and control risks at source.• Substitution, replace with a non-hazardous or less hazardous substance.• Give priority to engineering/technical control (e.g., ventilation and clean air, closed system) in comparison to personal protective measures.• Introduce and inform employees about the risks and prevention measures, including emergency response procedures.
Responsibility	<p>It is the responsibility of the chemical access control and department manager to:</p> <ul style="list-style-type: none">• Ensure that the requirements in this document are implemented and followed.• Ensure that hazard assessments have been conducted and are up-to-date.• Ensure reduction of exposure or the risk of injury with any chemical handling.• Ensure that chemical labelling and storage procedure are in compliance with global standards and local regulations.• Ensure that emergency procedures are written and that employees are trained in these procedures.• Ensure that the employees are introduced and instructed when handling chemicals.

	<p>It is the responsibility of the employees to:</p> <ul style="list-style-type: none"> • Know the hazards related to the use of chemicals. • Follow the rules and instructions given in this document. • Perform the work in a safe manner. • Report any incidents related to chemical handling.
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<p>Global Minimum Requirements</p>	<p>Below are the minimum requirements and limits for chemical handling. The minimum requirements in Altia are and will be part of any internal audit or safety assessment.</p> <p>IMPORTANT: These are the minimum requirements – additional stricter requirements must still be enforced in areas where this is required.</p>
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<p>External Contractors</p>	<p>Above requirements must be complied with by all external contractors who work for Anora.</p>
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<p>Documentation</p>	<p>SDS (Safety Data Sheet) for all chemicals used or stored on site must be available and they must be:</p> <ul style="list-style-type: none"> • Written in the national language or in a language that can be understood by the users. • Available near the workstation or consulted on a computer. • Updated according to a defined frequency or when the SDS changes. • All plants must have a complete list of hazardous chemicals used or stored at their workplace.
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<p>Hazard Assessment</p>	<p>The hazard assessment is required to evaluate the risk of injury or harm to a person during the use, storage and disposal of chemicals.</p> <p>The following aspects should be included in the department-based general hazard assessment:</p> <ul style="list-style-type: none"> • Hazard and classification of the substance or mixture (physical and chemical properties, stability and reactivity, etc.) • Use frequency (handlings/day etc.) and duration • Quantity of the substance handled • Safety controls (ventilation, PPE, etc.) • Workplace conditions (temperature, humidity, manual vs. enclosed system, etc.) <p>The risk assessment must be done in the case of new chemicals if the above mentioned requirements are fulfilled. The department-based general hazard</p>
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	<p>assessment should be reviewed at a minimum every three years or when there is significant change, e.g., a new chemical.</p> <p>Prior to buying/introducing a new chemical, it must be investigated whether it is possible to substitute hazardous chemicals with less hazardous or non-hazardous chemicals.</p> <p>For example, CMRs (Carcinogenic, Mutagenic, and Reprotoxic) must be replaced by another chemical less dangerous if possible.</p> <p>When neither the removal nor the replacement are possible, actions must be taken to minimise the risk level, for example, implement technical controls such as ventilation, reduce the amounts of CMR chemicals, reduce the number of exposed workers or the frequency or duration of the exposure. An updated list of people handling CMRs must be maintained and kept for the minimum amount of time required by the applicable legal and local standards.</p>
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<p>Labelling</p>	<p>All chemical containers must be properly labeled to identify the chemicals, which also applies to spray bottles et al.</p> <p>Primarily, chemicals are stored in sales packaging, the labels of which must meet legal requirements.</p> <p>At least the following information shall be clearly legible on containers owned by Anora:</p> <ul style="list-style-type: none"> • Name of the chemical • Hazard symbol according CLP regulation, e.g., flammable, oxidising, harmful, irritating, etc.
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<p>Handling of bulk chemicals</p>	<p>The following requirements should be met when handling/loading/unloading bulk chemicals.</p> <ul style="list-style-type: none"> • The truck/cargo must always be grounded when handling flammable chemicals. • The truck/cargo must be grounded if needed when handling other chemicals. • The loading/unloading location must be stocked with emergency equipment to avoid employee or environmental damage. • Pipelines and tanks must have labels according to local regulations. • The mouth of loading/unloading pipelines must be locked.
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<p>Storage</p>	<ul style="list-style-type: none"> • Chemicals should be stored in appropriate conditions according to the guidelines defined in the SDS and according to the hazard assessment.
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	<ul style="list-style-type: none">• Incompatible chemicals must be separated to prevent accidental mixing (e.g., catchment basin) which could cause fire, explosion, or toxic gases.• Storage areas for chemicals: room, cabinet, etc. should be labelled with appropriate markings.• Ventilation of chemical storage must be ensured.• The main chemical storage area should be locked.
Protection	<p>The following order of preventive actions should be adhered to:</p> <ol style="list-style-type: none">1. Elimination or reduction of hazards by technical improvements (e.g., chemical fume hood).2. Elimination or reduction of hazards by organisational improvements (e.g., pregnant women must not handle CMRs, etc.).3. Personal Protective Equipment (PPE) can be advised when the engineering/technical controls are not feasible. Employee protection against chemical hazards must comply with local standards and regulations.4. Requirements for safety shut-off, lock-out tag-out must be followed <p>NOTE: Anora Minimum Requirements Personal Protective Equipment (PPE) described the use of personal protective equipment, e.g., the use of respiratory protection.</p>
Emergency procedures	<p>Emergency response procedures must be in place to respond, e.g., chemical spill, chemical splash in eyes, etc.</p> <p>The appropriate emergency response equipment must be available near the work area according to applicable legislation, e.g., safety shower, saline solution bottles, etc.</p>
Waste	<p>All chemicals and all chemical containers must be stored in the hazardous chemical waste storage, accounted for and disposed of in accordance with the the safety data sheet and with legal/local requirements (safety and environmental).</p> <p>Chemical waste containers must be marked according to legal/local requirements (safety and environmental), see the section titled <i>Labelling</i>.</p>
Introduction	<p>All persons that handle or may be exposed to hazardous chemicals must be fully introduced. It is important to verify that people understand the potential risks and know the precautionary measures.</p> <p>All new employees must be introduced before starting work.</p>

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	<p>Introduction should cover:</p> <ul style="list-style-type: none">• The hazards related to all chemicals and appropriate precautionary measures.• Use of personal protective equipment.• Labelling requirements.• Storage requirements.• Emergency procedures. <p>If it is evaluated that someone did not follow the rules, then a refresher introduction should be given. If the training material is updated with some new hazards or precautionary measures, then everyone should have a refresher introduction.</p>
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Revision	This is a new document.
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