



**Oyu Tolgoi LLC**

Health, Safety and Environmental  
Management System Procedure

Guideline for Substances Approval

Guideline for Substances Approval		
Effective Date: 2014.08.17	Document Number: OT-10-B4-GDL-0001-E	Version: 1.0

**1. PURPOSE:**

This guideline documents the requirements for the introduction and approval of all substances to site.

**2. SCOPE:**

The evaluation of a substance should review the total risk to all personnel, environment and equipment.

Substances which require approval under this standard are:

- Classed as Dangerous Goods
- Classed as a Hazardous Substance, or
- Those with the potential to cause harm if used correctly or incorrectly.

**3. PROCEDURE**

For all substances brought onto site there must be a review to determine if they pose any material harm to people, equipment or the environment. There is also a Mongolian legislative requirement to obtain permits for some chemicals prior to importing them into country through the Ministry of Nature, Environment and Tourism (MNET).

**3.1 ChemAlert**

All substances that have been approved for site use will be entered into ChemAlert by the Hazardous Substance Coordinator (HSC).

Reviewing the ChemAlert Stock Register will determine if the substance has been approved for use on site. If in doubt if a substance has been approved contact the site Hazardous Substance Coordinator.

Products Found: 35		Register Products		
<input type="checkbox"/>	Product Name	Stock Number	Colour Rating	Stock Status
<input checked="" type="checkbox"/>	ACETIC ACID SOLUTION NOT LESS THAN 50% BUT NOT MORE THAN 80% ACID, BY MASS	19	Red	Restricted
<input type="checkbox"/>	ACETONE (ORICA)	25	Amber	Approved
<input type="checkbox"/>	ACETYLENE	26	Amber	Approved
<input type="checkbox"/>	AIR, COMPRESSED	27	Green	Approved
<input type="checkbox"/>	AMMONIA	13	Red	Restricted
<input type="checkbox"/>	AMMONIA - ANHYDROUS	1	Red	Banned

**Note: example only**

The substance will have the following wording in the stock status.

**“Approved”:** Can be used on site (if used as per risk assessment)

These substances can be used on site as long as the risk assessment has been reviewed and the controls are used. These chemicals have also been approved by the MNET if required.

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**“Restricted”**: Can be used on site but must follow additional health and safety requirements as set out in the risk assessment. These restrictions must be incorporated in the JHA for the use of the substance. There may be a requirement to establish specific monitoring. The Restricted substances will be listed in the ChemAlert Stock Register.

**“Banned”**: cannot be used on site.

Approval shall not be granted where there is an unacceptable safety, health or environmental risk associated with the substance. Typical chemicals that will be banned on site are:

Asbestos containing products, PCB chemicals and paint containing lead.

**“None”**: chemical is currently being assessed.

Other substances that need special considerations are:

#### **Radioactive Substances**

Do not form part of this guideline and require different approval. For the Radioactive substance approvals refer your queries to the Head of OT Radiation Safety Committee.

#### **IARC Class 1 – Confirmed Human Carcinogen**

- Substances containing ingredients identified as IARC Class 1 at significant concentrations shall be deemed to be themselves IARC class 1. The level at which a concentration becomes significant is a function of the toxicity and mobility of the substance, guidelines to be used in this determination are the Exposure limit (ES) or the Threshold Limit Value (TLV)
- Following the risk assessment by the Health Manager, approval from the General Manager is required.

### **3.2**

For new substances that are brought to the site a Substance Request Form (OT-10-B4-E5-FRM-0001) along with a copy of the ANSI form needs to be filled out by the requestor and forwarded to the Inventory Control Team, who will log the request.

The requestor will also need to determine if the substance will involve operational or technology changes this may then require a Management of Change (MOC) to be initiated.

The Substance Request and ANSI Forms are then forwarded onto the HSC for distribution to the Health and Environment team to determine if there are any health or environment risks that the substance may cause. These risk assessments will be subsequently uploaded into ChemAlert.

The request is also forwarded onto the HSE compliance Team to determine if a MNET permit is required. If a permit is required then the requestor will be notified for additional information that will be required to obtain the permit. This process will take approximately 6 weeks.

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The HSC will then coordinated the collection of these forms and then determine if the substance will be approved or not for site use based on the information gathered.

### 3.3

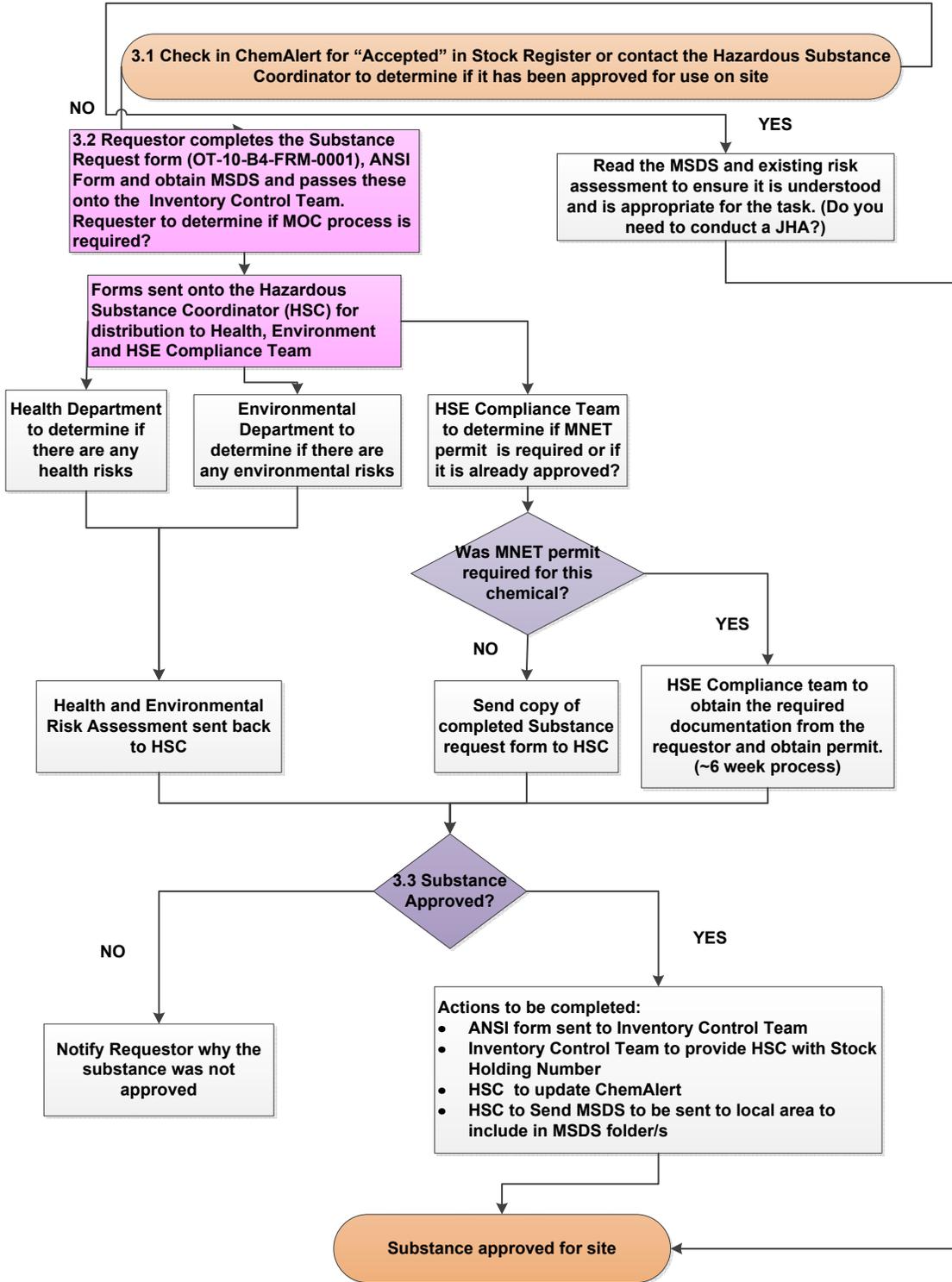
If the substance has not been approved the requestor will be notified by the HSC.

If the substance is approved the following actions will be completed:

- ANSI form sent to Inventory Control Team
- Inventory Control Team to provide HSC with Stock Holding Number
- HSC to update ChemAlert
- HSC to Send MSDS to be sent to local area to include in MSDS folder/s both in English and Mongolian.

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### Substance Approval Process



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#### 4. DEFINITIONS

**Substances:** an umbrella term used to describe any substance that, because of its chemical, physical or biological properties, can cause harm to people, property or the environment. It is a term that collectively describes substances that are classified according to the hazard they present, including but not limited to 'dangerous goods', 'combustible liquids', and 'hazardous substances'.

**Dangerous goods** are classified on the basis of immediate physical or chemical effects such as fire, explosion, corrosion and poisoning that may affect property, people or the environment (e.g. petrol, pool chlorine, and some pesticides).

Hazardous substances are classified only on the basis of health effects - both medium and long term - particularly in relation to workplaces.

**MNET:** Ministry of Nature, Environment and Tourism of Mongolia Government agency responsible for issuing chemical import, use, retail, transport and disposal permits.

#### 5. REFERENCES AND RELATED DOCUMENTS

	Name	Location
Legal and Other Requirements	Law on Hazardous and Toxic Chemicals of Mongolia, 2006	Legal register
	Regulation on storage, transportation, usage and disposal of toxic chemicals and hazardous materials, February 3, 2009	Legal register
	Regulation on export, import, cross-border transportation, production and storage of toxic chemicals and hazardous materials, November 16, 2009	Legal register
	Regulation on ozone depleting substance import and use approval issuing	Legal register
	List of toxic and hazardous materials the use of which is banned in Mongolia, Government resolution # 95, 2007, Government resolution # 95, 2007	Legal register
Oyu Tolgoi HSE Management System	<ul style="list-style-type: none"> <li>OT-10-B4-E5-PRC-0001-E Substances Procedure</li> <li>OT-10-E5-PRC-0001-E Oyu Tolgoi Hazardous Substance and Contamination Control Management Plan</li> </ul>	
Forms, Checklists, Permits, Templates	<ul style="list-style-type: none"> <li>OT-10-B4-E5- FRM-0001 Substance Request Form</li> </ul>	

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**6. DOCUMENT CONTROL**

File Name	OT-10-B4-GDL-0001-E Guideline for Substances Approval
Description	Substance
Original Author(s)	Paul Gerber, Manager Health and Radiation Safety
Creation Date	2014.08.17
Approved By	Paul Gerber
Approval Date	2014.08.17
Change Record Number	##

Risk Ranking	Assessment Date	Risk Assessor	Review Schedule	Next Review Date
Moderate	2014.08.17	Paul Gerber, Manager Health & Radiation Safety	2 Yearly	2016.08.17

Revision	Revision Date	Author(s)	Approved By	Revision Notes
1.0	2014.08.17	Paul Gerber	Paul Gerber	First version .