INTEL CHEMICAL/MATERIAL SUPPLIERS EHS EXPECTATIONS TRAINING

January 2020

https://www.intel.com/content/www/us/en/supplier/ehs/material-ehs-supplier-expectations-training.html

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AT INTEL

WE'RE POWERING THE FUTURE OF COMPUTING AND COMMUNICATIONS, DELIVERING EXPERIENCES ONCE THOUGHT TO BE IMPOSSIBLE.

INTEL'S MISSION & VISION

Our mission:

Utilize the power of Moore's Law to bring smart, connected devices to every person on earth.

Our vision:

If it's smart and connected, it's best with Intel.

OBJECTIVES

At the end of this training, you should:

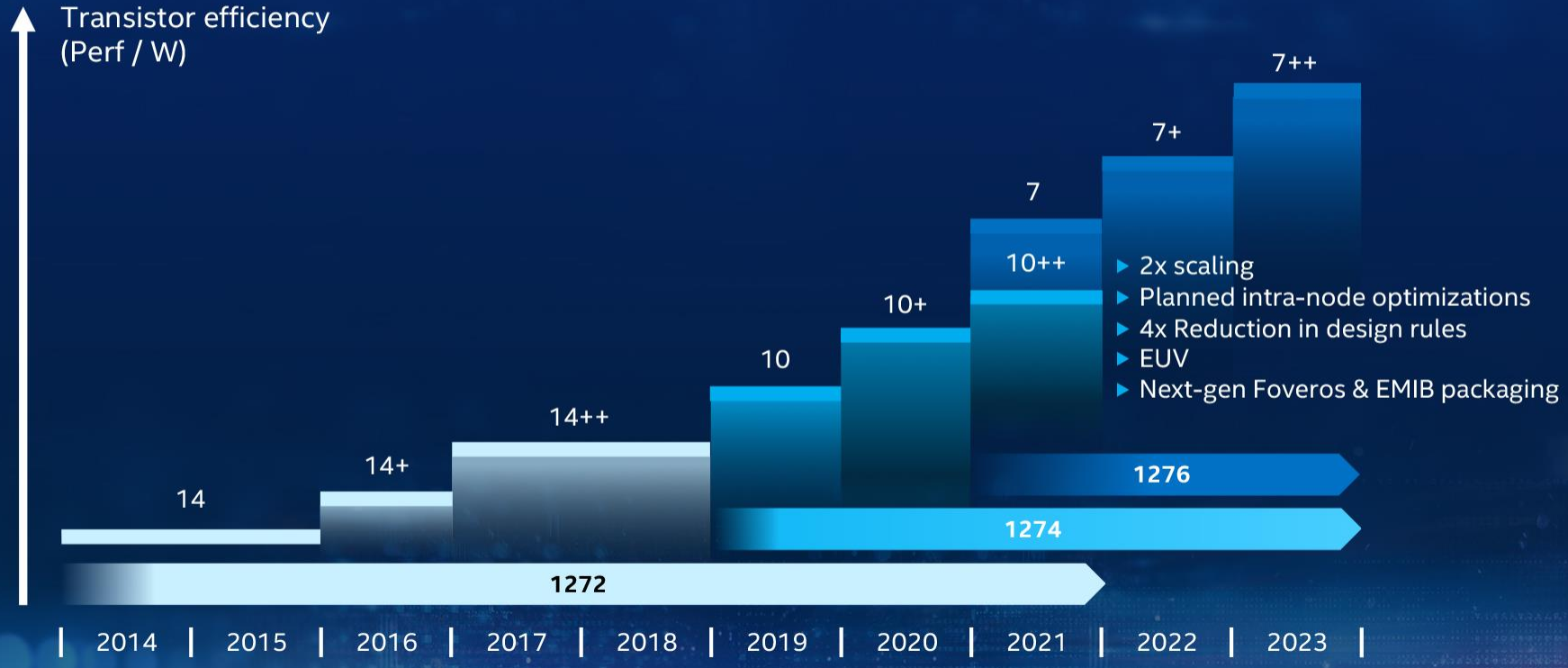
- Understand why Intel is requesting information on suppliers related to Environmental, Health, and Safety (EHS)
- Know how to meet Intel's expectations
  - Information disclosure: What/when/how
  - Change management

KEY TOPICS

- Background & Motivation
- Types of Materials in Scope
- Determining regulatory requirements, information disclosure and timing
- Change Management
- Lessons Learned
- Summary

BACKGROUND & MOTIVATION

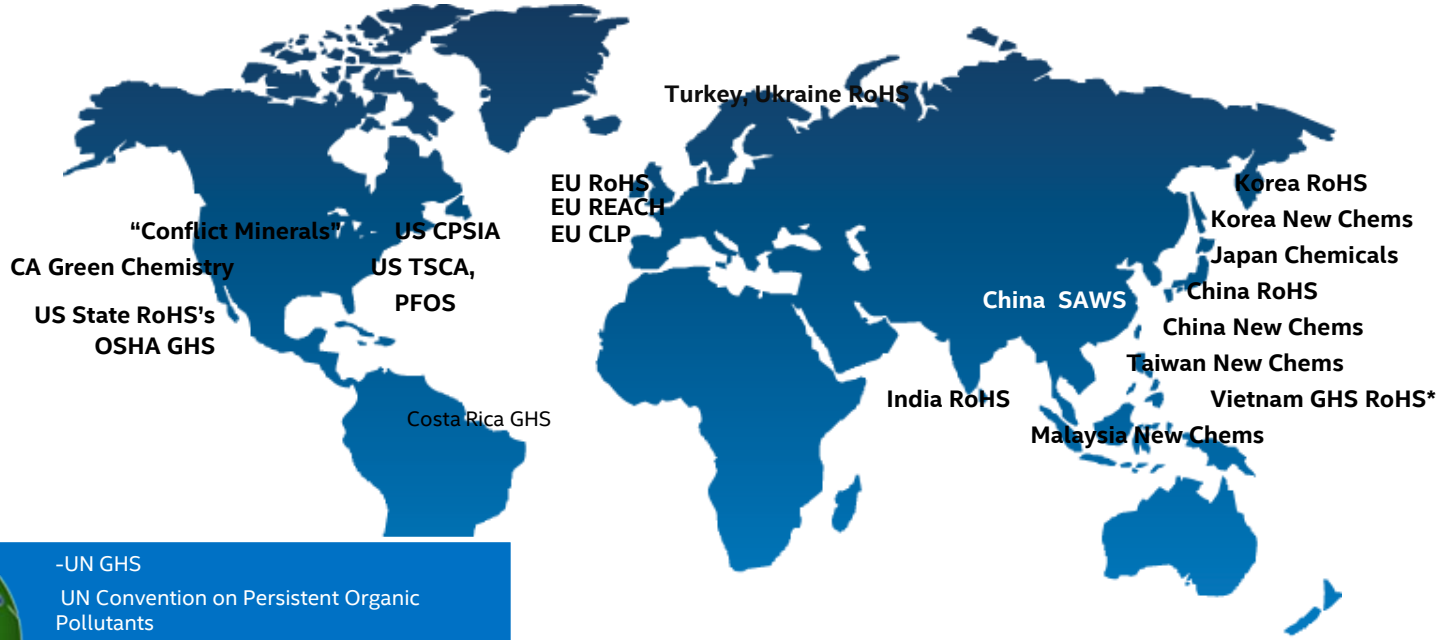
RELENTLESS INNOVATION CONTINUES



NEW CHEMISTRY CHALLENGES

From SEMATECH (Semiconductor Manufacturing Technology)

EHS GLOBAL REGULATIONS – INCREASING



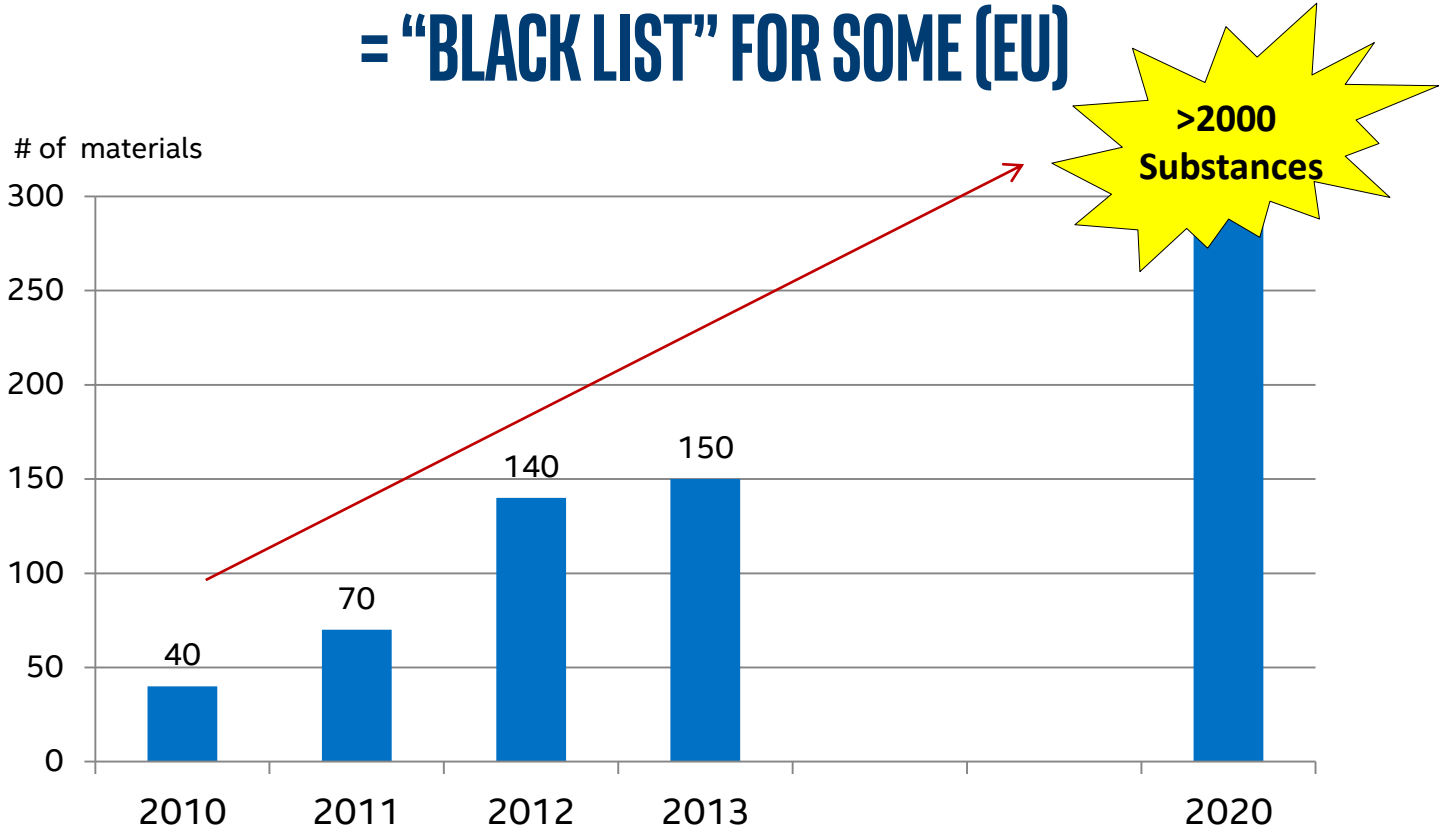
-UN GHS

UN Convention on Persistent Organic Pollutants

- UN Strategic Approach to Chemicals Management

- UN/OECD Due Diligence Guidance for "conflict minerals"

NEW MATERIALS CONTINUALLY ADDED TO CANDIDATE LISTS = "BLACK LIST" FOR SOME (EU)



HOW DOES INTEL USE THE INFORMATION PROVIDED?

To assess and mitigate business risks to Intel's:

- **Supply Chain**
  - Ensure Intel can procure most desirable materials
  - Ensure Intel can legally receive/use the materials in each manufacturing site
- **Manufacturing Processes**
  - Ensure Intel has the controls in place in factories to protect people and the environment
- **Final Products**
  - Ensure Intel products meet the regulatory requirements of each country Intel ships/sells to

Note – Intel also helps to enable innovation by influencing legislation to "make sense" while maintaining protection of human health & the environment.

TYPE OF MATERIALS IN SCOPE

REGULATIONS CAN APPLY MORE BROADLY THAN TO THE "CHEMICAL" ITSELF

All pure **substances**

Substances in **mixtures**

Substances in **articles**

CHEMICALS: SINGLE SUBSTANCE OR MIXTURE

Types

- **Liquids**- i.e. sulfuric acid, photoresists, solder flux, underfill
- **Gases** - i.e. silane, diborane, precursors
- **Solids** – solder wire/balls, metal targets

WHAT NEEDS TO BE DONE DEPENDS ON THE HAZARD OF THE SUBSTANCE

ARTICLES

Types

- Boards
- Cables
- CPUs
- Gloves
- Gowns
- Parts
- Substrates
- Tools

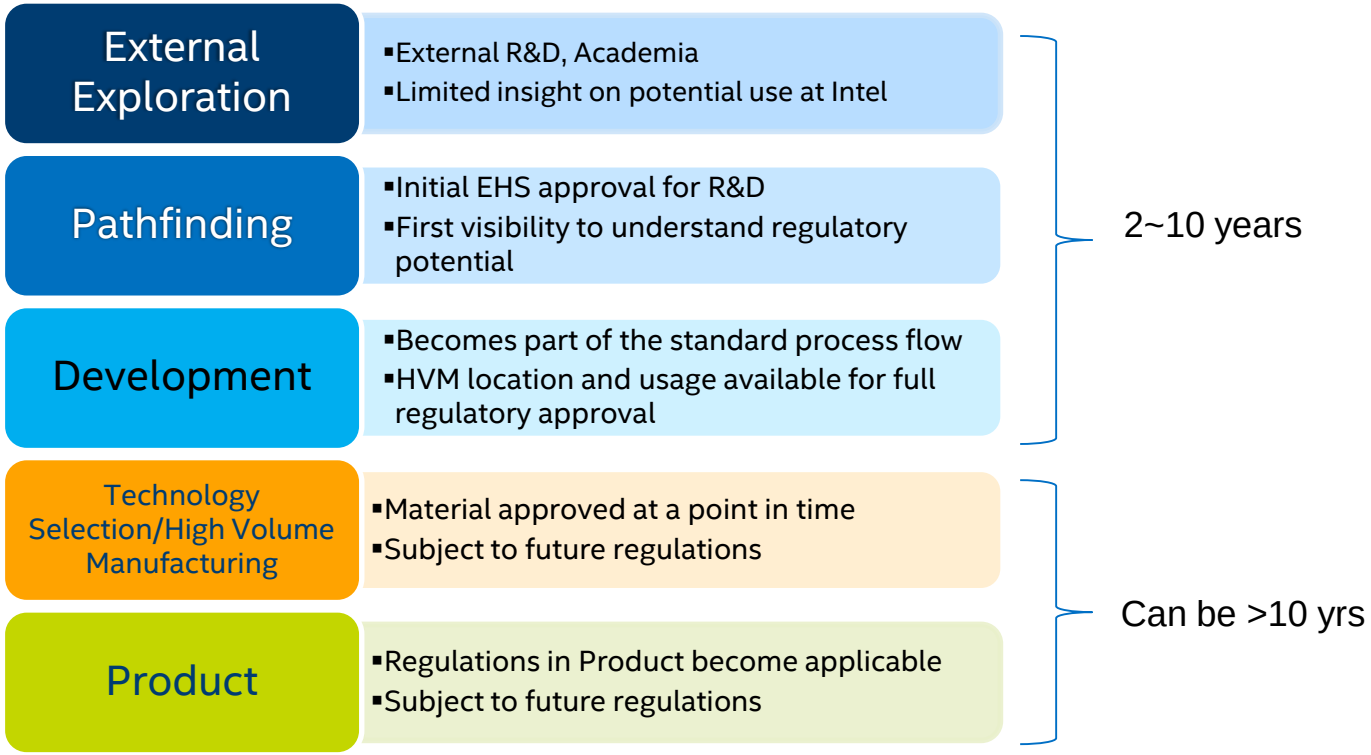
WHAT NEEDS TO BE DONE DEPENDS ON WHAT THE SUBSTANCES IS WITHIN THE ARTICLE , ITS CONCENTRATION, IF IT IS RELEASED, ETC..

DETERMINING REGULATORY REQUIREMENTS, INFORMATION DISCLOSURE AND TIMING

GOAL: ENSURE REGULATORY REQUIREMENTS ARE MET AT EACH STAGE OF THE MATERIAL LIFECYCLE

Raw Material Procurement	▪Country specific process and regulations ▪Country specific registrations	Proof of supplier compliance
Supplier Manufacturing	▪Country specific process and regulations ▪Country specific registrations	
Transport to Intel	▪Import/Export ▪GHS – labelling & SDS; Substances in Articles (tools/spares) ▪US TSCA / EU REACH / China MEP NEW / SAWS registration	
Intel Manufacturing	▪Safe Use ▪Abatement/Waste Disposal ▪SDS & SEIMS (IP - full material disclosure)	Supplier information required
Final Intel Product	▪Substances in Articles ▪MDDS, IPC , SEIMS	

BALANCE THE INFORMATION REQUESTS WITH POTENTIAL IMPACT



MATERIAL TYPES & INFORMATION REQUIRED

		GHS & Region Specific (M)SDS	IP DATA (SEIMS)	GHS & Region Specific label	Regulatory declaration	IPC 1752 (MDDS) or IEC 62474	Green Chemistry Screening & Alternative Assessment	Examples
CHEMICALS	**R&D Samples**	X	X (CMP and only when requested)	X				Lab samples, pathfinding chemicals
	HVM Materials <u>NOT</u> in final product	X	X	X	X		X	Acetone, Wafer coat, Fluorinert, CMP slurry, Litho, etchants, targets
	HVM Materials IN final product	X	X	X	X	X	X	Underfill, Solder paste and balls, Thermal interface material
ARTICLE	**<u>NOT</u> in final products**	**TBD – SEMI White Paper (OA5)**						Tools, Spare parts, Micro, Pads,
	IN final product	X sub-components	X		X	X		Substrates, capacitors, heat spreaders

INTEL'S MATERIAL SELECTION PHASES AND EHS NEEDS

Material Selection Phase	What EHS information is needed	Why
External Exploration	None – Understand what would be required	No surprises if selected
Pathfinding & Development	SDS for R&D chemical IP data for parts in final product or Negative declaration to Intel's Product Ecology Watch list or IP data	Basic understanding of materials
Technology Development	Safety Data Sheet (SDS) for chemicals if different than R&D	Basic understanding of materials
Leading Candidates	Early Timeline for SEIMS (IP data) request **SEIMS**	Full understanding of materials
Leading Candidates	Declaration that all chemicals will meet country regulatory requirements (TSCA, REACH, MEP, MOH, SAWS…) **REG** Green Chemistry Screening & Alternative Assessment Results	Required to legally import/use
Materials Selection	Material Declaration Data Sheet (MDDS), IPC, or IEC for articles	Full understanding of final product
	Updated MDDS, IPC, or IEC if needed	

INTEL'S MATERIAL SELECTION PHASES AND EHS NEEDS

Material Selection Phase	What EHS info is needed	Why
Technology Selection	Updated SDS with exact/new chemical name container label that matches SDS	Required by law; ensures basic Hazard Communication
	Additional Test Data upon request	Meet Customer requirements
	IP data into SEIMS – **REQUIRED**	Understand full material risk
	Responsible Minerals (or fka "conflict minerals") requirements	Intel can be conflict free
Material Selection / HVM	SDS and label to match for each material in all languages where used	Required by each country to have SDS/Label in local language – basic Hazard Communication
	IP data into SEIMS (if not done so)	Understand full material risk
	Final declaration that country-specific registrations, regulatory requirements complete	Ensure Intel can legally use material in each country
	Importer requirements established & Incoterms defined – Intel ≠ importer of chemicals (in most cases), particularly for HazMat HazMat transportation information and logistics known	Required by law, supplier/shipper will have more detailed data and expertise on classification and categories

CM/SCE/TSO

Note – Intel requires ALL SDSs & Labels to be in the GHS format for Pathfinding, Development, & HVM

GHS

HOW INTEL UTILIZES THE INFORMATION COLLECTED

Assess and manage risk for the following:

- Supply Chain
  - Ensure Intel can legally receive/use materials in all applicable locations
- Manufacturing Processes
  - Ensure Intel has controls in place for safe use and the environment
- Final Products
  - Ensure products meet ALL regulatory requirements.

CHANGE MANAGEMENT

WHAT IF THERE ARE CHANGES?

Material changes, and documents such as labels, must be managed using **Intel's Change Control (xCCB) system** (e.g. White Paper) following these steps:

1. Any change to a container LABEL must be done through a White Paper. Level & Class depends on type or significance of change - check with your Intel Engineer.
2. Any updates to an existing already approved SDS must be submitted to:

   Mailbox - Intel_MSDS@intel.com
3. Updates must include a copy of the SDS Submission form:

   https://supplier.intel.com/static/EHS/Intel_SDS_Submission_Form.pdf

No changes are allowed in SEIMS once the data was entered. However, if there are errors in the data entries, please contact your Intel Commodity or Supplier Manager for assistance.

LESSONS LEARNED

Continuous Areas of Improvement

COMMON SUPPLIER SDS ISSUES

- Not GHS compliant
- Missing Country-specific address in Section 1
- Ingredients in Section 2 do not add up to 100%
- Product Identifier does not match container label product identifier
- Overclassified or misclassified
- Controls section too generic (Section 8)
- Not provided in native language
- Information “conflicts” or does not match with label or other documents
- Updates not send to Intel Mailbox: Intel_MSDS@intel.com
- Country-specific hazard category adoptions not provided (e.g. Eye Irritant Category **2** vs. **2A/B**)
- Series SDS nomenclature

COMMON SUPPLIER LABEL ISSUES

- No Hazard Communication label
- Not in GHS format
- Label not in native language
- Product Name on label does not match Product Identifier on SDS
- Label missing basic required information
- Label different than label elements specified in Section 2 of SDS
- GHS pictogram (in addition) required to UN transport label required in China but not in U.S.
- Chemical container label conflicts with DOT transport label

Common Supplier Other Issues

- SEIMS (IP) data not entered
- SEIMS data does not list specific percentage (%)
- SEIMS ingredient missing CAS #
- Supplier regulatory declarations do not specify TSCA exemptions
- Supplier regulatory declarations are incomplete

SUMMARY

Summary

1. Correctly classify your materials
2. Provide “compliant” SDS’s to Intel in all required Languages (GHS)
3. Label all chemical containers with “complaint” label in all languages (GHS) that match SDS
4. Have a legal entity or authorized representative, e.g. E.U. Only Representative, in each country of export
5. Register/notify chemicals in all countries of export as required
6. Provide regulatory declarations to Intel for each country of import/export
7. Provide full disclosure of materials (SEIMS)
8. Provide MDDS, IPC, EPC information

Summary

- Understand Intel EHS requirements
- Understand and comply to all country regulations where products may need to go
- Go to https://supplier.intel.com/supplierhub/
- Become familiar with Intel's EHS policies and procedures for the supply chain
- Be proactive - understand upcoming worldwide regulations that impact your materials

Additional References

Please obtain from Intel Commodity Manager:

- Fab Materials EHS Specification (M_07-65-0031-019)
- Fab Materials Operations Change Control Procedure (M_07-65-116-019)
- Fab Materials Returnable Chemical Container Procedure (M_07-65-404-019)

Available at http://supplier.intel.com

- Environmental Product Content Specification
  https://supplier.intel.com/static/environment/product-compliance/index.htm
- SEIMS Training
  https://www.intel.com/content/www/us/en/supplier/ehs/seims.html

Acronyms

HVM – High Volume Manufacturing

GHS – Global Harmonization System

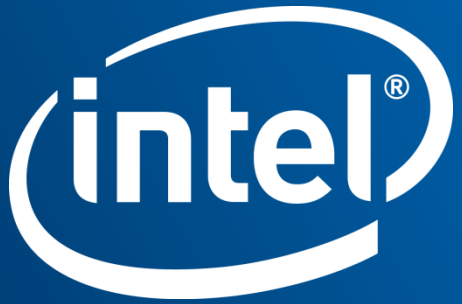
SVHC – Substance of very high concern

SDS – Safety Data Sheet

LVE – Low Volume Exemption

CIQ – China Inspection & Quarantine

SEIMS – **S**upplier **E**HS **I**P **M**anagement **S**ystem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BACKUP / DETAILS

GHS – LABELS & SDS

What is GHS?

GHS = Global Harmonized System of Classification and Labelling of Chemicals

- The NEW HAZARD COMMUNICATION
- Worldwide initiative to promote standard criteria for classifying chemicals
- System uses pictograms, hazard statements, and the signal words “Danger” and “Warning” to communicate hazards on
  - **Supplier product container labels**
  - **Supplier safety data sheets**
- Primary goal of GHS is better protection of human health and the environment

Country-Specific GHS Status & Implementation

- Each country has a regulatory agency and regulation that "implements" the GHS requirements
  - Example – U.S. Occupational Safety & Health Administration (OSHA) through 29 CFR 1910.1200 – Hazard Communication Standard

Site	Implementation	Links
U.S.	Effective March '12. Effective June'15 for substance and mixture.	OSHA Hazard Communication Standard (HCS): http://www.osha.gov/dsg/hazcom/index.html 29 CFR 1910.1200 Hazard Communication
China	Effective May'11 China published new standard adopting UN GHS Rev4.	GHS of Classification & Labelling of Chemicals: http://www.miit.gov.cn/n973401/n974339/index.html Policies & Regulations: http://www.miit.gov.cn/n973401/n974339/n974344/n974346/index.html
VN	Effective March'12. Due May'14 for substances and May'16 for mixtures	National law on Chemicals, Decree No. 113/2017/ND-CP, Circular no. 04/2012/TT-BCT Vietnam National Chemical Database: http://chemicaldata.gov.vn/cms.xc
MY	Effective Oct'13 w/ ICOP released in '14	Classification, Labelling and Safety Data Sheet of Hazardous Chemicals (CLASS) 2013 Industry Code of Practice (ICOP) on Chemicals Classification and Hazard Communication 2014
EU	Adopted – Pure substances must be in compliance; Deadline for mixtures is May '15	Adopted GHS as part of the CLP & REACH: https://ec.europa.eu/growth/sectors/chemicals/classification-labelling_en
IS	Members of the OECD are required to implement GHS. Effective 90 days publication on August '19, with a 3-year transition period until August 9, '22.	SI 2302 Parts 1 and 2: https://www.chamber.org.il/media/160991/%D7%A7%D7%95%D7%91%D7%A5-%D7%94%D7%AA%D7%A7%D7%A0%D7%95%D7%AA-8217.pdf

Chemical/Material Suppliers Regulatory Obligations

- Correctly classify hazardous materials using the Globally Harmonized System (GHS)
- Provide GHS Safety Data Sheet (SDS)
  - **In EVERY LANGUAGE OF COUNTRY SHIPPED TO**
- Label all chemical containers per GHS and country specific guidelines
  - **IN EVERY LANGUAGE OF COUNTRY SHIPPED TO**
  - Ensure label on container matches the **Product Identifier** in **Section 1** of the SDS
  - Ensure country specific registration requirements are met

Chemical Classifications

Chemicals must be classified using a harmonized system (GHS) that provides standardized language for:

- Health Hazard Categories
- Physical Hazard Categories
- Environmental Hazard Categories*

Safety Data Sheets

Under the new GHS Hazard Communication Standards, **Material Safety Data Sheets** (MSDS) are now called **Safety Data Sheets** (SDS).

All SDSs must have a consistent 16-section format.

Suppliers must ensure that SDSs are compliant and in each native language

Updates to SDSs as needed – send updates to Intel_MSDS@intel.com

Safety Data Sheets (SDSs)

New 16-section standardized SDS format required

Section 1 – Identification

- Country Specific Address
- Phone Numbers

Section 2 – Hazard(s) identification

Section 3 – Composition / Information on Ingredients

Section 4 – First-aid Measures

Section 5 – Fire-fighting Measures

Section 6 – Accidental Release Measures

Section 7 – Handling and Storage

Section 8 – Exposure Controls/PPE

Section 9 – Physical and Chemical Prop.

Section 10 – Stability and Reactivity

Section 11 – Toxicological Information

Section 12 – Ecological Information*

Section 13 – Disposal Consideration*

Section 14 – Transport Information*

Section 15 – Regulatory Information*

Section 16 – Other information including date of preparation of last revision

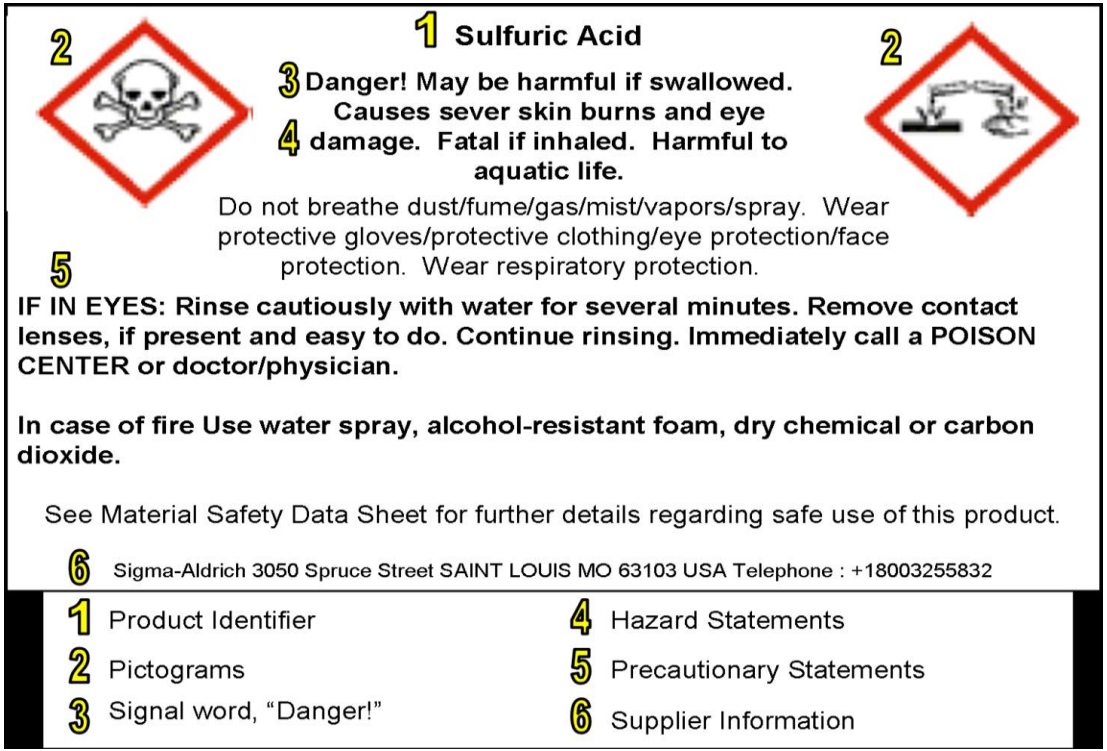
Container Label Elements

Note – A “Universal label” is BEST (if feasible)

- Symbols called “Pictograms”
- Signal Words
- Hazard Statements
- Precautionary Statements
- Product Identification
- Supplier/Manufacturer Identification

Must comply to with country-specific regulations, e.g. China GB15258-2009

GHS Hazard Communication Label Example



What is a container?

- Innermost package that contains the Chemical
- Examples - Syringe, bag, jug, jar, drum, tote, tube that contains the chemical
- If “small” then must have at a minimum
  - Product Identifier, pictogram, Manufacture name & phone number
  - Signal word, and A statement indicating full label is provided on outside package

Chemical Drums

SDS Section 1 must match Label Number 1

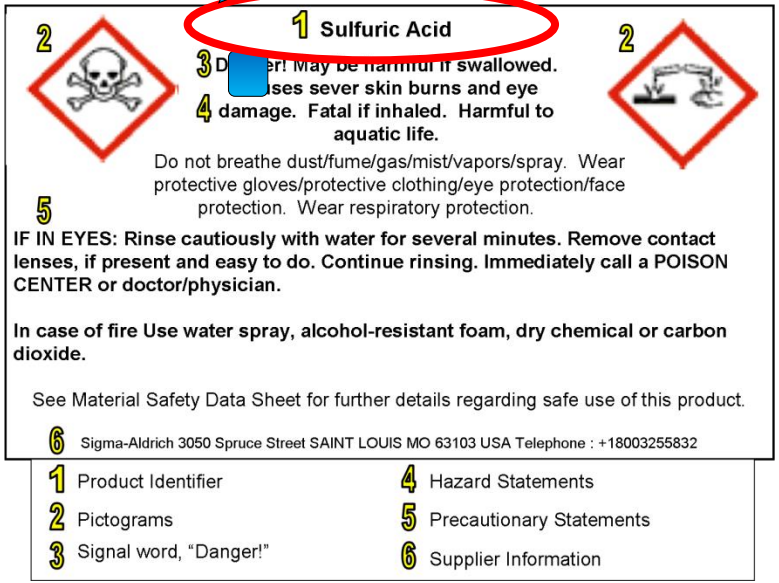
GHS Label

SDS Section 1

Section 1: Identification of the [illegible]bstance/mixture and of

1.1. Product identifier

Trade name	:	Sulphuric Acid >=96%
Substance name	:	sulphuric acid
Index-No.	:	016-020-00-8
CAS-No.	:	7664-93-9
EC-No.	:	231-639-5
Registration number	:	01-2119458838-20-xxxx



Note: Label Elements Specified in SDS must match container label

?

CHEMICAL REVIEW / USE EVALUATION

Chemical Review / Use Eval – Two Focus Areas

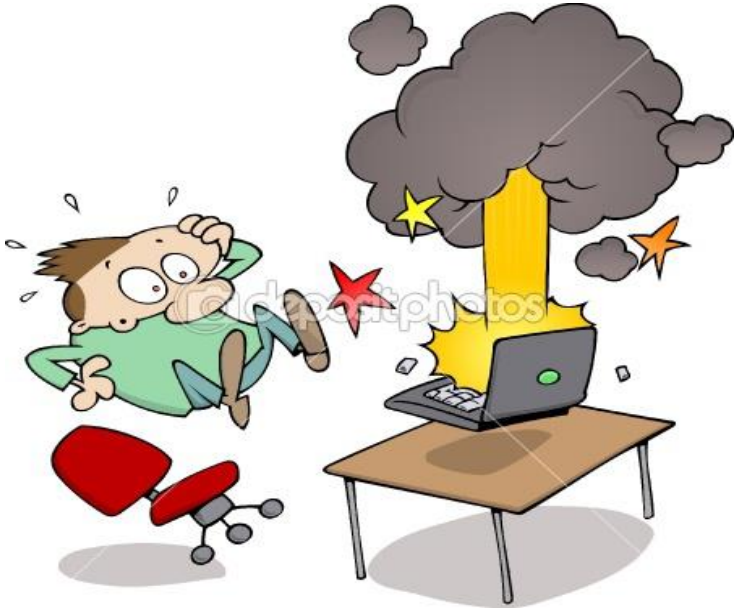
- Initial chemical procurement for R&D testing
  - Initial Chemical Review / Use Evaluation **prior** to purchase or shipment by review of SDS
  - Initial understanding of potential regulations impacting chemical ingredients (ingredients not always fully disclosed)
  - Approval contingent on R&D volumes, chemicals not entering into commerce
  - May require full material disclosure (IP data)
- Transfer /Select chemicals for HVM manufacturing
  - Final review for use at Intel and receiving sites
  - All proprietary ingredients entered into SEIMS
  - Full Materials Risk Assessment Completed
  - All SDSs and container labels in native language

FULL MATERIAL DISCLOSURE

SEIMS

Why full material disclosure?

- Only way to perform a COMPLETE & COMPREHENSIVE risk assessment



What is meant by FULL material disclosure?

ALL Ingredients

- Ingredients required to be listed on the SDS
- Intellectual property (IP) claimed ingredients
- Intentionally added ingredients
- Any byproduct ingredient required for form, fit, and function

Information required

- Ingredient name
- Chemical Abstract Number (CAS)
- Percentage of Ingredients must total 100%

How is SEIMS data protected/stored?

- Intel's **S**upplier **E**HS **I**P **M**anagement **S**ystem **(SEIMS)** is a secure database

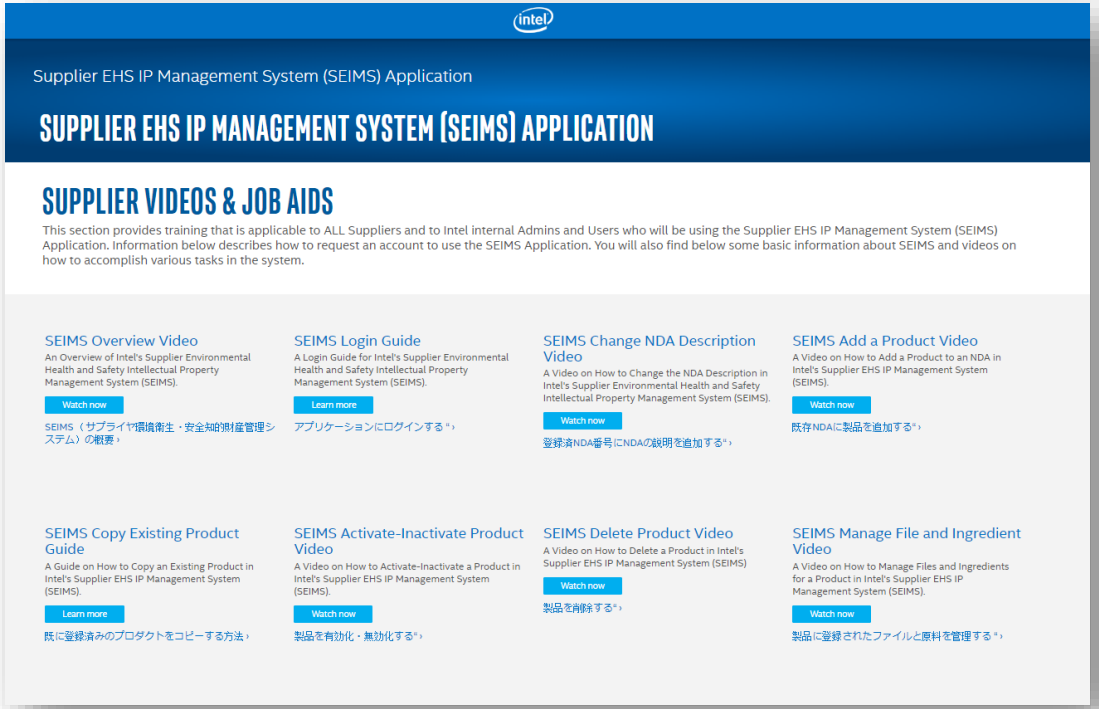
- SEIMS is a separate database, that is only accessible to certain EHS professionals.

- SEIMS is accessible to Intel suppliers through Intel's external Supplier Portal System (SPS) at http://supplier.intel.com

Your Role as a Supplier

- Get SEIMS training and access SEIMS through Intel's supplier portal - http://supplier.intel.com/
  - Training is available in many languages
- Ensure that your IP disclosures are covered under an existing Non-Disclosure Agreement (NDA) – some suppliers have several NDAs with Intel
- Know your Intel EHS and Supply Chain Sustainability (SCS) contact to notify after you have uploaded IP information into SEIMS

SEIMS Supplier Training



https://www.intel.com/content/www/us/en/supplier/ehs/seims.html

SUPPLIER REGULATORY DECLARATIONS

Supplier **MUST** declare to Intel country-specific substance regulatory information

General

- Suppliers must have a legal entity in each country to perform the registration/notification duties
- Complete for each country that Intel will use

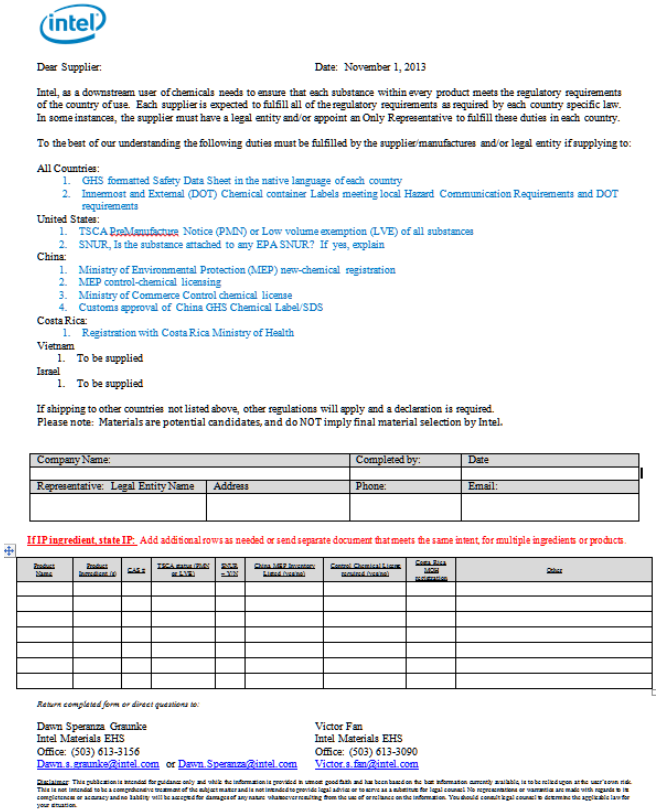
Types of information needed

- Substance registration status, Registration numbers
- Substance Notification status, Notification numbers
- Substance listed on SNUR, Authorization and/or restrictions list

Some EXAMPLES

- U.S. TSCA listed or Exempted
- China MEP new substance registration or notification
- EU REACH Pre-registration, Registration, Authorization, Restriction
- EU CLP notification
- Malaysia CLASS

Example: Supplier Declaration



Dear Supplier: Date: November 1, 2013

Intel, as a downstream user of chemicals needs to ensure that each substance within every product meets the regulatory requirements of the country of use. Each supplier is expected to fulfill all of the regulatory requirements as required by each country specific law. In some instances, the supplier must have a legal entity and/or appoint an Only Representative to fulfill these duties in each country.

To the best of our understanding the following duties must be fulfilled by the supplier/manufactures and/or legal entity if supplying to:

All Countries:
1. GHS formatted Safety Data Sheet in the native language of each country
2. Innermost and External (DOT) Chemical container Labels meeting local Hazard Communication Requirements and DOT requirements

United States:
1. TSCA PreManufacture Notice (PMN) or Low volume exemption (LVE) of all substances
2. SNUR, Is the substance attached to any EPA SNUR? If yes, explain

China:
1. Ministry of Environmental Protection (MEP) new-chemical registration
2. MEP control-chemical licensing
3. Ministry of Commerce Control chemical license
4. Customs approval of China GHS Chemical Label/SDS

Costa Rica:
1. Registration with Costa Rica Ministry of Health

Vietnam
1. To be supplied

Israel
1. To be supplied

If shipping to other countries not listed above, other regulations will apply and a declaration is required.
Please note: Materials are potential candidates, and do NOT imply final material selection by Intel.

Company Name:		Completed by:	Date
Representative: Legal Entity Name	Address	Phone:	Email:

If IP ingredient, state IP: Add additional rows as needed or send separate document that meets the same intent, for multiple ingredients or products.

Product Name	Product formulation #	CAS #	TSCA status (PMN or LVE)	SNUR = YES	China MEP Inventory Listed (Yes/no)	Control Chemical License Required (Yes/no)	Costa Rica MOH registration	Other

Return completed form or direct questions to:

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- Each individual chemical used in the formulation must be registered in each country that Intel will use the material.
- Delay in registrations may result in delay in use of the material

Europe – REACH

What

- **Reach is European community regulation on chemical substances and their safe use**
- **It requires the Registration, Evaluation, Authorization and Restriction of certain chemical substances**
  - **Pure**
  - **Within Mixtures**
  - **Within articles**

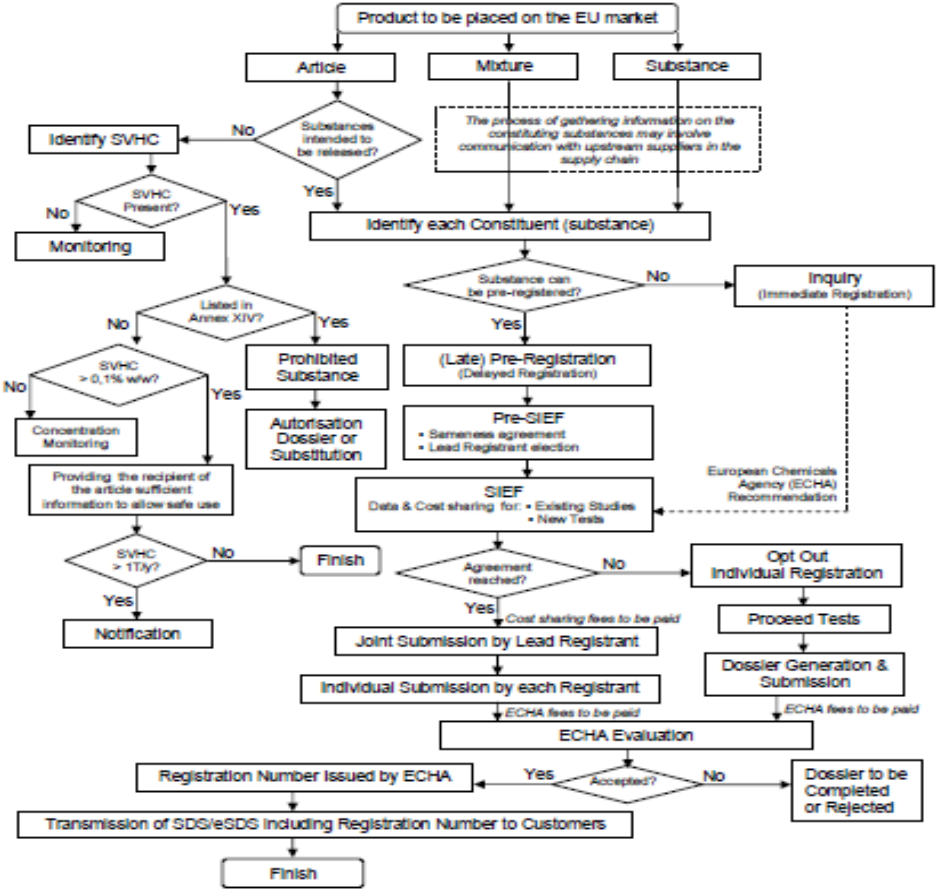
Who/Scope

- **Chemical Suppliers/manufacturers who manufacturer or import > 1 ton per year or any amount of an authorized chemical**
- **Intel's chemical Suppliers to Ireland**

How

- **Chemical Suppliers/manufacturers must gather information on properties and uses and register in a central database with ECHA - REGISTRATION**
- **ECHA will evaluate a percentage of submittals and may ask for more information -EVALUATION**
- **ECHA will place SVHC's on the candidate list for eventual inclusion in - AUTHORIZATION or RESTRICTIONS**
- **Intel must collaborate with suppliers to ensure our uses and risk management measures are understood**

REACH COMPLIANCE FLOWCHART



Europe – Classification, Labeling, & Packaging (CLP)

What

- **The EU regulation that align Europe's system to classify and label chemicals in accordance with the Global Harmonization system (GHS)**

Why

- **Update the classification, labels and MSDS's of existing chemicals to meet the GHS criteria**

Who

- **All Suppliers/Manufacturers/importers of Dangerous Chemicals – no Threshold**

When

- **Now – All substances must be notified**

How

- **Suppliers must send Notification on the classification to ECHA**
- **Update Chemical container label with new pictograms and phrases**
- **Update Safety data Sheets to meet GSH standards**
- **Intel has a white paper process to help manage the label change**

Europe – Requirements to Notify Poison Centers

Importers and downstream users placing hazardous mixtures on the market, and distributors who modify the label or packaging for hazardous mixtures, will need to notify the ingredients in those mixtures classified as hazardous for physical effects and/or health effects.

U.S. Toxic Substance Control Act (TSCA)

- Primary law that oversees chemical products in commerce
- TSCA addresses the production, importation, use, and disposal of specific chemicals
- EPA has authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances
  - Significant New Use Rules (SNURs) restrict chemicals – PFOS
- Supplier expectations
  - Ensure all substances supplied to Intel are on the TSCA inventory or exempted
  - List information on MSDS
  - Follow any restriction provisions

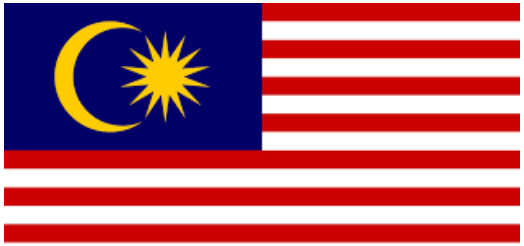
China Supply-Chain Chemical Registrations & Licensing Requirements

REGULATORY PROGRAM	ENFORCEMENT AGENCY
❑ New Chemicals Registration	MEE; Local EEP
❑ Priority Controlled Chemicals Registration & Permit	Customs; MEE; Local EEB
❑ Strictly Restricted Toxic Chemicals Permit	Customs; MEE; Local EEB
❑ Hazardous Chemical Registration	MEM; Local WSB
❑ China GHS -- SDS and Chemical Container Labels Approval	Customs; Local EEB; Local WSB

- MEE – Ministry of Ecology and Environment (formerly MEP) ;
- MEM – Ministry of Emergency Management (formerly SAWS) ;
- EEP – Local Ecology and Environment Bureau ;
- WSB – Local Work Safety Bureau ; Customs – Local Customs ;
- GHS – Global Harmonization System on chemical hazard clarification & communication

Malaysia Classification, Labelling and Safety Data Sheet of Hazardous Chemicals (CLASS)

- Primary law that governs occupational health & safety in Malaysia, including chemical importer requirements.
- “Principal suppliers”, i.e. importer, must provide classification record, possibly for a 3-year permit to import in the future.
- Supplier expectations:
  - Provide SDSs and GHS labels in English & Malay.
    - SDS should contain hazard categories that Malaysia has adopted.
  - Provide Classification Records per ICOP 2014 to the importer.



Vietnam National Law on Chemicals Decree No. 113/2017/ND-CP

- Primarily law on detailing conditions on chemical manufacturers and traders.
  - Also provides a National Chemical Database System
- Regulated chemicals can be listed as:
  - Conditional (Annex I), Restricted (Annex II), or Banned (Annex III)
  - Requiring incident prevent and response plans (Annex IV)
  - Subject to compulsory declarations (Annex V)
- Supplier expectations:
  - Provide SDS & GHS label in English & Vietnamese.
  - Inform Intel if ingredient is regulated as listed above.
  - Provide sufficient information for import declarations.

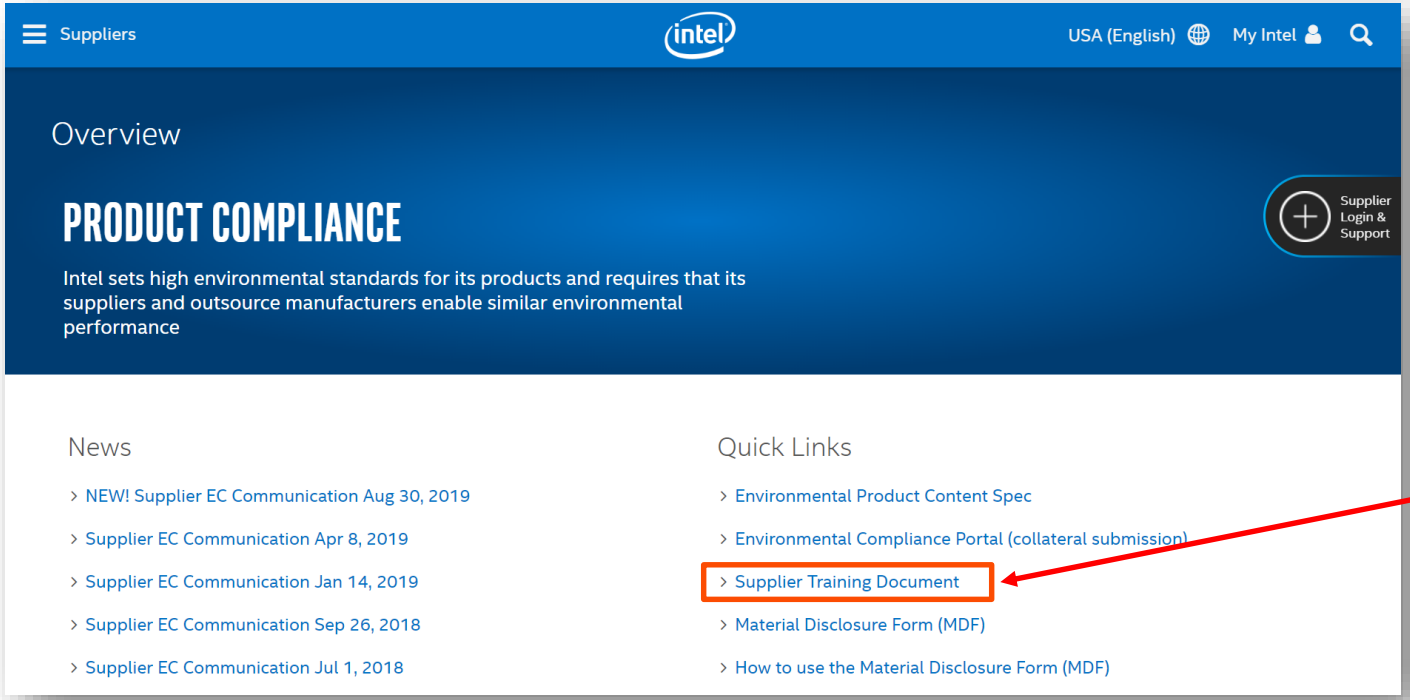
Costa Rica Ministry of Health Registration

- It is the responsibilities of end user (Intel) to register each chemicals products to be imported
- Each chemicals need to get registration permit from Ministry of Health before importing
- Registration form (prepared by professional chemist), together with MSDS need to be submitted to MH for registration
  - SDS need to be translated to local language
    - SDS must be dated no sooner then year 2000
  - All chemical ingredients CAS # and percentage need to be disclosed
    - All ingredients need to disclosed including non hazardous chemical
    - Ingredients percentage can be given in range, but not greater then 20% variant (e.g. 10-30% is acceptable; 10-50% is not acceptable)
    - Chemical without MH registration will be stopped at Customs
- Normal PTP ~4 weeks

PRODUCT ECOLOGY

https://www.intel.com/content/www/us/en/supplier/environment/product-compliance/overview.html

Intel's Product Compliance Website



Supplier Training

https://www.intel.com/content/www/us/en/supplier/environment/product-compliance/overview.html

SUPPLIER PROGRAM TO ACCELERATE RESPONSIBILITY & COMMITMENT (SPARC)

SUPPLIER PROGRAM TO ACCELERATE RESPONSIBILITY & COMMITMENT (SPARC)

Objective: SPARC program suppliers are executing Intel Supplier Responsibility requirements.

Key focus areas include:

- Operational and supply chain conformance to RBA & RMI standards
- Sourcing goods and services responsibly
- Corporate responsibility transparency
- Operating with the lightest environmental footprint possible

Where suppliers do not yet have the capability to meet expectations in these areas, they are engaging with Intel to develop plans to close the gaps.

SPARC SUPPLIER PROGRAMS

Code of Conduct

- Audits & Self-Assessments against RBA Code of Conduct

Responsible Minerals

- Sourcing policies & procedures to ensure “Low-risk” smelter and refinery use
- Survey Responses as requested

Environmental Footprint

- CDP Climate Change and Water Use Surveys
- GHG and Water Use Reduction Targets

Supplier Diversity & Inclusion

- Tier 2 Spends Reporting

Responsible Chemical Management

- Green Chemistry Screening

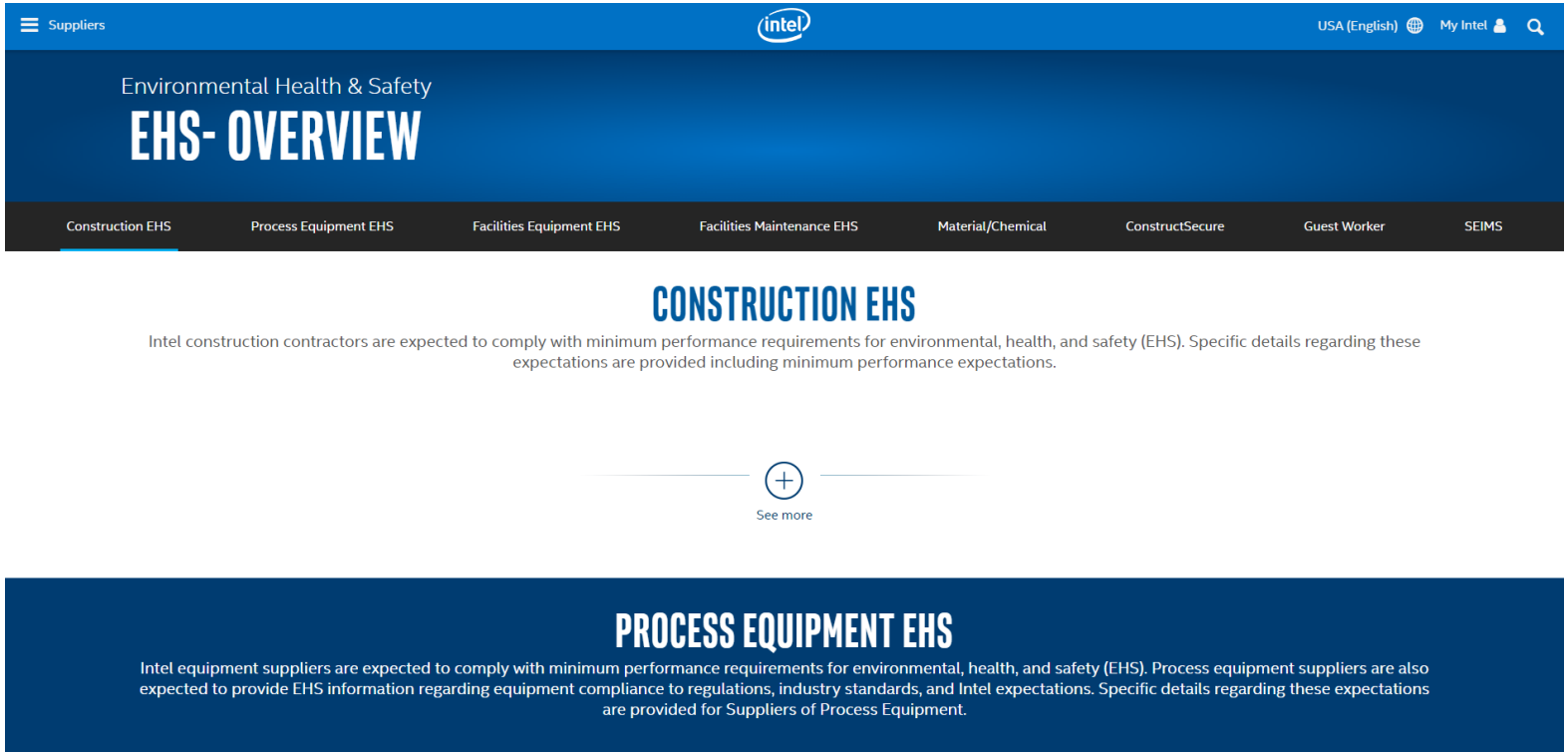
RBA = Responsible Business Alliance
CDP = 3rd party org that drives global surveys on Climate Change & Water Use
GHG = Greenhouse Gases
Tier 2 = Supplier to Tier 1 Supplier

Responsible Minerals Assessment

- Supplier has a publicly available Responsible Minerals policy
- Supplier has completed the Conflict Minerals Reporting Template (CMRT) and upload/provide a copy to Intel
- Supplier has identified all the 3TG (Tin, Tantalum, Tungsten, Gold) & Cobalt smelter/refiner(s) in their supply-chain
- Supplier has performed due diligence in validating the supply chain is conflict free.
- Supplier has executed risk assessment in eliminating high risk smelters from the supply chain.

RESOURCES

Supplier EHS Expectations & Training



https://www.intel.com/content/www/us/en/supplier/ehs/overview.html

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Revision History

Document #	Rev	Date	Change Summary
	1.0	-	Previous revisions
…	…	…	…
	10.0	1/30/20	Updated format, updated information, and corrected minor information