How to Know if Your SDS is Compliant:

A Global Guide for Diverse Industries

TotalSDS

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THANK YOU FOR JOINING US!

This 30-minute session will focus on real SDS examples, global compliance standards, and practical tips to identify red flags and improve your SDS documents.

Let's get started!

TotalSDS

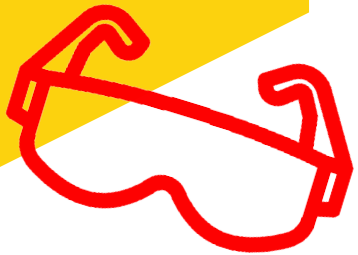
Agenda:

- SDS Compliance Basics & Global Regulations
- Live Dissection of Registrant SDS Examples
- Comparison with a Self-Created (Model) SDS
- Identifying “Red Flags” & Best Practices
- Interactive Q&A and Discussion

Objectives:

- **Understand** key elements of a compliant SDS.
- **Recognize** common pitfalls and red flags (including glaring non-compliance).
- **Gain practical tips** for keeping SDSs current and regulatory-compliant.

Why SDS Compliance Matters



What's the purpose of an SDS?

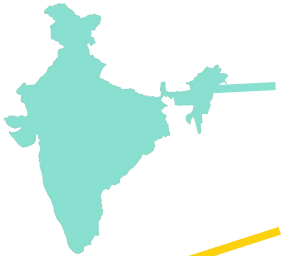
- Communicate hazards
- Safe handling procedures
- Protect workers
- Protect environment

Why SDS Compliance Matters

Impact on Safety & Liability:

Non-compliance can jeopardize worker safety and lead to regulatory penalties.

Why SDS Compliance Matters



Regulatory Landscape:

Global HazCom Regulations

GHS-Adopted Regions Examples:

- **United States:** OSHA Hazard Communication Standard (HCS)
- **Canada:** WHMIS 2015
- **European Union:** REACH/CLP

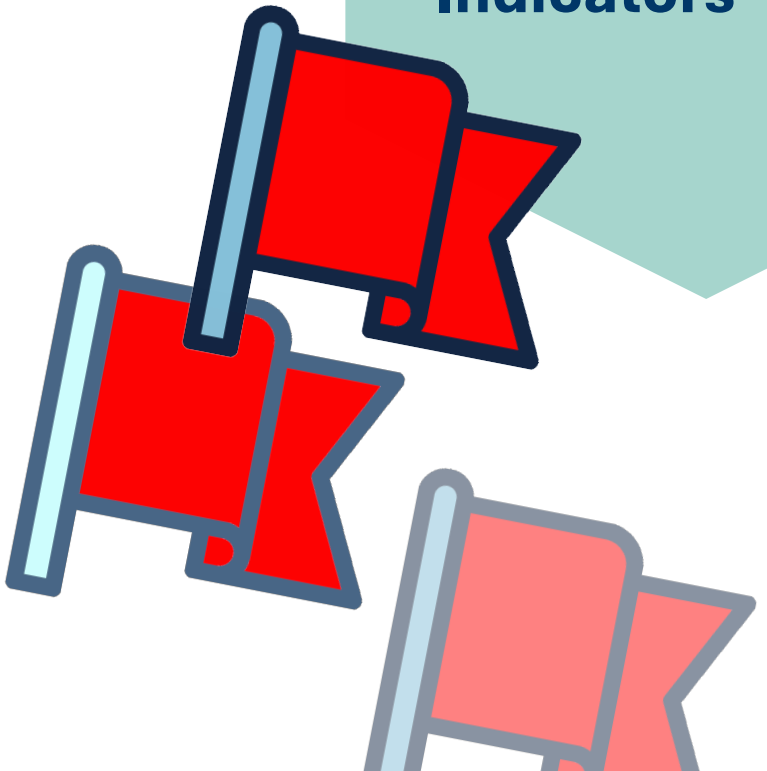
Non-GHS SDS Regulation Examples:

- **India:** Local regulations include additional region-specific hazard details not fully aligned with the GHS framework.
- **Belarus:** Actively working towards implementing the GHS.

Red Flags & Non-Compliance Indicators

Checklist of Common Red Flags:

- Missing or vague hazardous ingredient details.
- Lack of standardized signal words, hazard statements, and pictograms according to the relevant regulation.
- Outdated format (e.g., using “MSDS” instead of SDS).
- Inconsistencies in emergency and precautionary information.



SDS Sample Reviews

Understanding what is compliant in SDS documents.

- Let’s review actual SDSs submitted by attendees.
- Gain a better understanding of hazard communication compliance.

SDS Example A:
Noticeably Non-Compliant

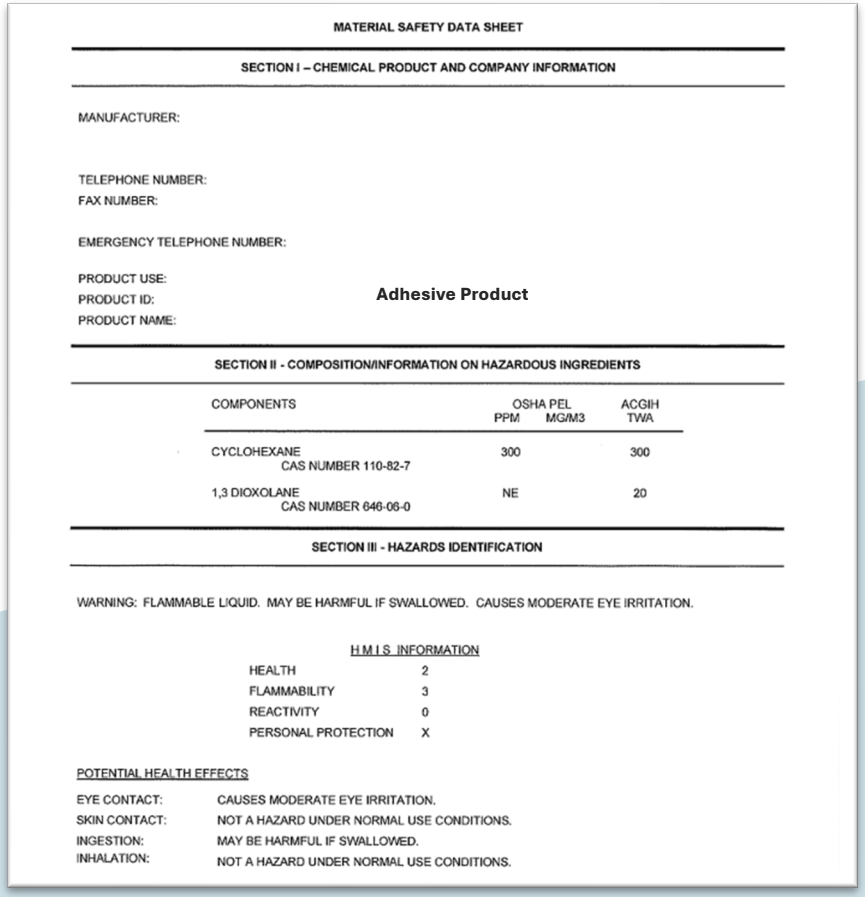
Title Labeling Issue:

Uses “MSDS” instead of “SDS” – an immediate indicator of outdated practices.

Format & Content Errors:

Section 2 discloses composition instead of clearly outlining hazards.

Hazards listed in Section 3 do not align with OSHA HazCom or GHS requirements.



MATERIAL SAFETY DATA SHEET

SECTION I – CHEMICAL PRODUCT AND COMPANY INFORMATION

MANUFACTURER:

TELEPHONE NUMBER:
FAX NUMBER:

EMERGENCY TELEPHONE NUMBER:

PRODUCT USE:
PRODUCT ID: **Adhesive Product**
PRODUCT NAME:

SECTION II - COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

COMPONENTS	OSHA PEL PPM	OSHA PEL MG/M3	ACGIH TWA
CYCLOHEXANE CAS NUMBER 110-82-7	300		300
1,3 DIOXOLANE CAS NUMBER 646-06-0	NE		20

SECTION III - HAZARDS IDENTIFICATION

WARNING: FLAMMABLE LIQUID. MAY BE HARMFUL IF SWALLOWED. CAUSES MODERATE EYE IRRITATION.

H.M.I.S. INFORMATION

HEALTH	2
FLAMMABILITY	3
REACTIVITY	0
PERSONAL PROTECTION	X

POTENTIAL HEALTH EFFECTS

EYE CONTACT:	CAUSES MODERATE EYE IRRITATION.
SKIN CONTACT:	NOT A HAZARD UNDER NORMAL USE CONDITIONS.
INGESTION:	MAY BE HARMFUL IF SWALLOWED.
INHALATION:	NOT A HAZARD UNDER NORMAL USE CONDITIONS.

SDS Example B:
In-Depth Analysis

Missing & Extraneous Information:

Lacks key precautionary statements – a gap our software automatically addresses.

Contains “P statements” that should not be present.

Missing list of classifications

Classification of the substance or mixture:

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Health Hazard:

H319: Causes serious eye irritation.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.

Environmental Hazards:

H411: Toxic to aquatic life with long lasting effects

Physical Hazards:

Not classified - No dangerous reaction known under conditions of normal use.

Signal Word:

WARNING

Skin irritation, Eye effects

Acute Toxicity (harmful)

Precautionary Statements (Phrases):

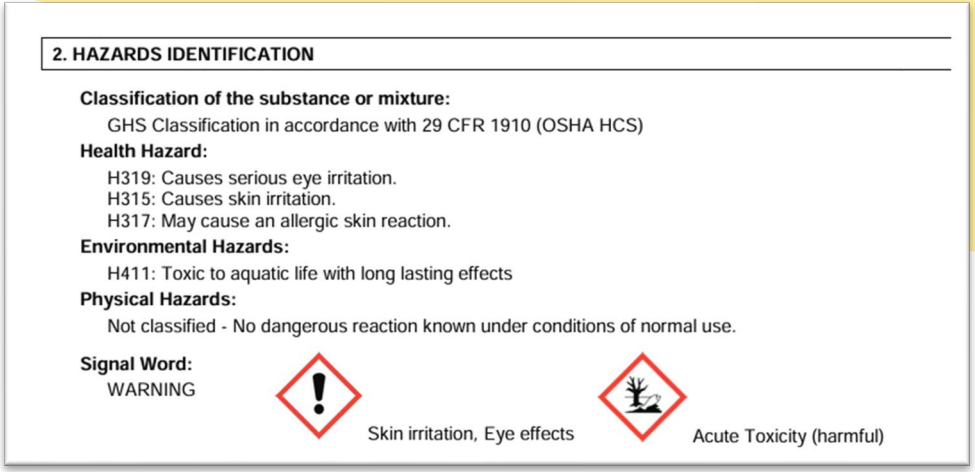
P202: Do not handle until all safety precautions have been read and understood.
P262: Do not get in eyes, on skin, or on clothing
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with soap and water
P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P337+P313: If eye irritation persists: Get medical advice/attention
P301 + P330 + P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P308 + P313: If exposed or concerned: Get medical advice/attention.
P273: Avoid release to the environment
P391: Collect spillage
P501: Dispose of contents/container to: Send to a licensed recycler, reclaimer or incinerator

SDS Example B:

In-Depth Analysis

Confusing Hazard Communication:

Features contradictory information, such as a “deadfish” pictogram paired with questionable hazard descriptors that raise doubts about acute toxicity.



2. HAZARDS IDENTIFICATION

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H411: Toxic to aquatic life with long lasting effects

Physical Hazards:

Not classified - No dangerous reaction known under conditions of normal use.

Signal Word:

WARNING

Skin irritation, Eye effects

Acute Toxicity (harmful)

Omits essential details on eye and skin irritation in Section 4: **Most important symptoms/effects, acute and delayed.**

Most important symptoms/effects, acute and delayed.

Dermal: A component in this mixture has caused allergic skin reactions in humans.

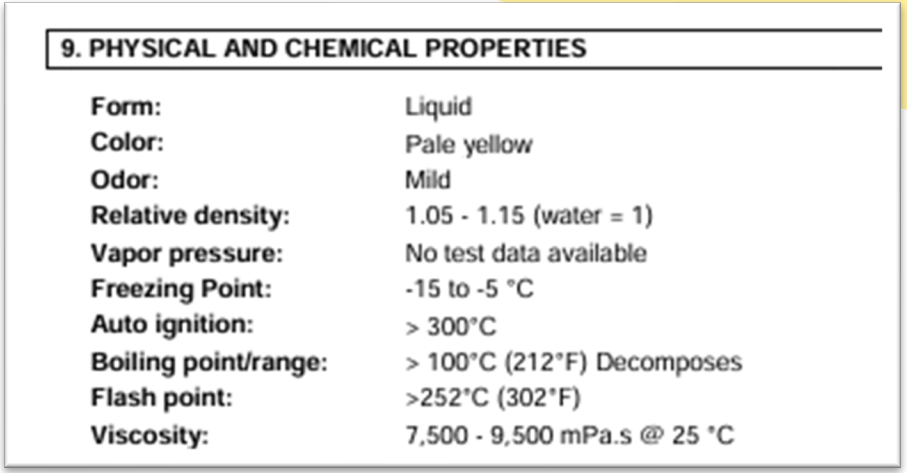
SDS Example B:
In-Depth Analysis

Section 9 Data Gaps (HCS 2012):

Missing required data fields per Section 9 of HCS 2012

For reference, Section 9 HCS 2012 requirements

(source: https://www.osha.gov/hazcom/appendix-d)



9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Color:	Pale yellow
Odor:	Mild
Relative density:	1.05 - 1.15 (water = 1)
Vapor pressure:	No test data available
Freezing Point:	-15 to -5 °C
Auto ignition:	> 300°C
Boiling point/range:	> 100°C (212°F) Decomposes
Flash point:	>252°C (302°F)
Viscosity:	7,500 - 9,500 mPa.s @ 25 °C

SDS Example B:
In-Depth Analysis

Data Gaps & Jurisdiction Issues:

Missing required data fields per HCS 2012 (e.g., IARC, NTP, OSHA Carcinogen data).

11. TOXICOLOGICAL INFORMATION

Acute Health Hazard

Ingestion:		Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury. As product: Single dose oral LD50 has not been determined. Estimated: LD50, Rat > 2,000 mg/kg.
Inhalation:		At room temperature, exposure to vapor is minimal due to low volatility. The LC50 has not been determined.
Skin:	**Contact:**	Prolonged or repeated contact may cause skin irritation.
	Absorption:	Prolonged skin contact is unlikely to result in absorption of harmful amounts, but may cause skin irritation with local redness. Repeated contact may cause skin irritation with local redness The dermal LD50 has not been determined.
	Sensitization:	A component in this mixture has caused allergic skin reactions in humans.
Eye irritation:		May cause slight temporary eye irritation. Corneal injury is unlikely.
Repeated Dose Toxicity:		Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects.

Chronic Health Hazard:

Many studies have been conducted to assess the potential carcinogenicity of diglycidyl ether of bisphenol A (DGEBPA). Indeed, the most recent review of the available data by the International Agency for Research on Cancer (IARC) has concluded that DGEBPA is not classified as a carcinogen. Although some weak evidence of carcinogenicity has been reported in animals, when all of the data are considered, the weight of evidence does not show that DGEBPA is carcinogenic.

Developmental Toxicity:

Based on information for component(s): Resins based on the diglycidyl ether of bisphenol A (DGEBPA) did not cause birth defects or other adverse effects on the fetus when pregnant rabbits were exposed by skin contact, the most likely route of exposure, or when pregnant rats or rabbits were exposed orally.

Reproductive Toxicity:

For residual liquid epoxy resin: In animal studies, did not interfere with reproduction.

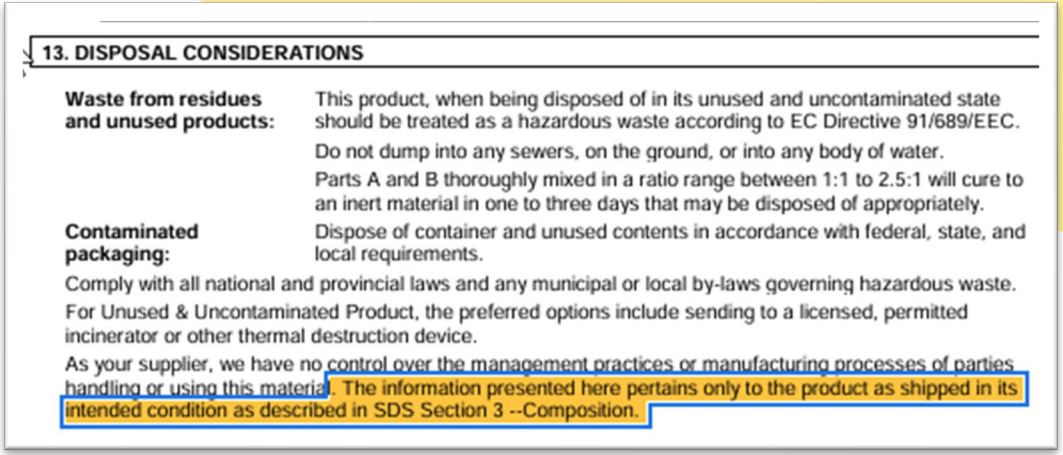
Genetic Toxicity:

For the component(s) tested: In vitro genetic toxicity studies were negative in some cases and positive in other cases. For the component(s) tested: Animal genetic toxicity studies were negative.

SDS Example B:
In-Depth Analysis

Data Gaps & Jurisdiction Issues:

Contradictory information because the intended use highlighted here is in Section 1, not in Section 3.



13. DISPOSAL CONSIDERATIONS

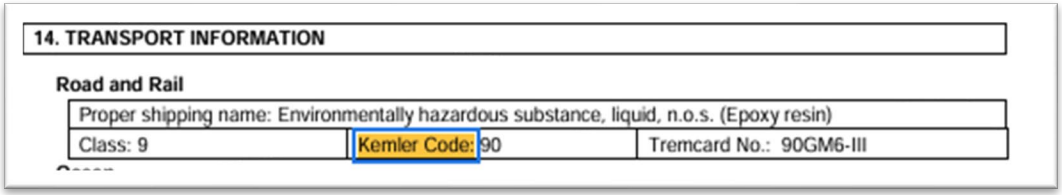
Waste from residues and unused products:	This product, when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 91/689/EEC.
	Do not dump into any sewers, on the ground, or into any body of water.
	Parts A and B thoroughly mixed in a ratio range between 1:1 to 2.5:1 will cure to an inert material in one to three days that may be disposed of appropriately.
Contaminated packaging:	Dispose of container and unused contents in accordance with federal, state, and local requirements.

Comply with all national and provincial laws and any municipal or local by-laws governing hazardous waste.

For Unused & Uncontaminated Product, the preferred options include sending to a licensed, permitted incinerator or other thermal destruction device.

As your supplier, we have no control over the management practices or manufacturing processes of parties handling or using this material. The information presented here pertains only to the product as shipped in its intended condition as described in SDS Section 3 --Composition.

References ADR transport mode (an EU regulation) rather than focusing on the US regulations.



14. TRANSPORT INFORMATION

Road and Rail

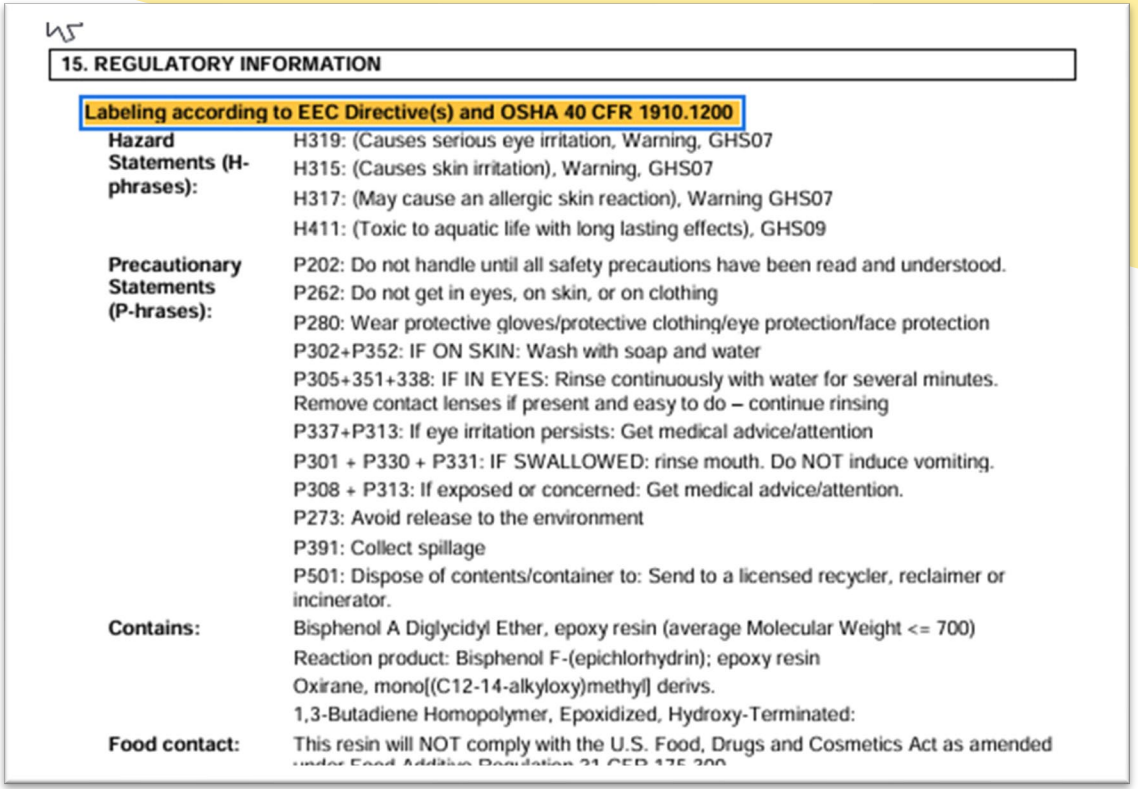
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin)		
Class: 9	Kemler Code: 90	Tremcard No.: 90GM6-III

SDS Example B:

In-Depth Analysis

Data Gaps & Jurisdiction Issues:

Should not reference more than one jurisdiction. One SDS per jurisdiction (aside from US/Canada).



15. REGULATORY INFORMATION

Labeling according to EEC Directive(s) and OSHA 40 CFR 1910.1200

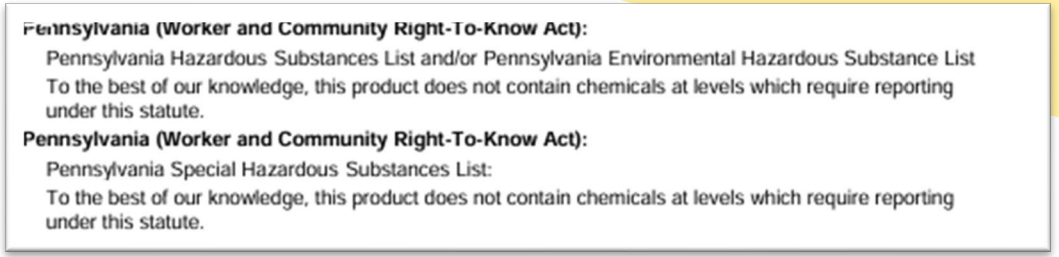
Hazard Statements (H-phrases):	H319: (Causes serious eye irritation, Warning, GHS07 H315: (Causes skin irritation), Warning, GHS07 H317: (May cause an allergic skin reaction), Warning GHS07 H411: (Toxic to aquatic life with long lasting effects), GHS09
Precautionary Statements (P-hrases):	P202: Do not handle until all safety precautions have been read and understood. P262: Do not get in eyes, on skin, or on clothing P280: Wear protective gloves/protective clothing/eye protection/face protection P302+P352: IF ON SKIN: Wash with soap and water P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing P337+P313: If eye irritation persists: Get medical advice/attention P301 + P330 + P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P308 + P313: If exposed or concerned: Get medical advice/attention. P273: Avoid release to the environment P391: Collect spillage P501: Dispose of contents/container to: Send to a licensed recycler, reclaimer or incinerator.
Contains:	Bisphenol A Diglycidyl Ether, epoxy resin (average Molecular Weight <= 700) Reaction product: Bisphenol F-(epichlorhydrin); epoxy resin Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 1,3-Butadiene Homopolymer, Epoxidized, Hydroxy-Terminated:
Food contact:	This resin will NOT comply with the U.S. Food, Drugs and Cosmetics Act as amended

SDS Example B:

In-Depth Analysis

Data Gaps & Jurisdiction Issues:

Confusing information for PA RTK:



Pennsylvania (Worker and Community Right-To-Know Act):

Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Pennsylvania (Worker and Community Right-To-Know Act):

Pennsylvania Special Hazardous Substances List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

SDS Example C:

Moderate Compliance Issues

Content & Classification Issues:

No intended use is specified in Section 1.
No Manufacturer address listed.

SECTION I - IDENTIFICATION

Product Name: ..... Fiber Optic Cleaning Solution
Product No.: 4010
Manufacturer: ..... Rainbow Technology Corporation 1-800-637-6047
Contact: ..... Larry Joe Steeley, Jr.
Emergency Phone No. (24 Hrs.): CHEM-TEL 1-800-255-3924

SDS Issue Date: 3/17/2022
SDS Replaces Date: 12/30/2020

SDS Example C:

Moderate Compliance Issues

Content & Classification Issues:

Based on its IPA content (60–100%), it should be classified as STOT SE 3 (affecting the central nervous system) with proper label elements – information that is missing.

Section 2. Hazards identification

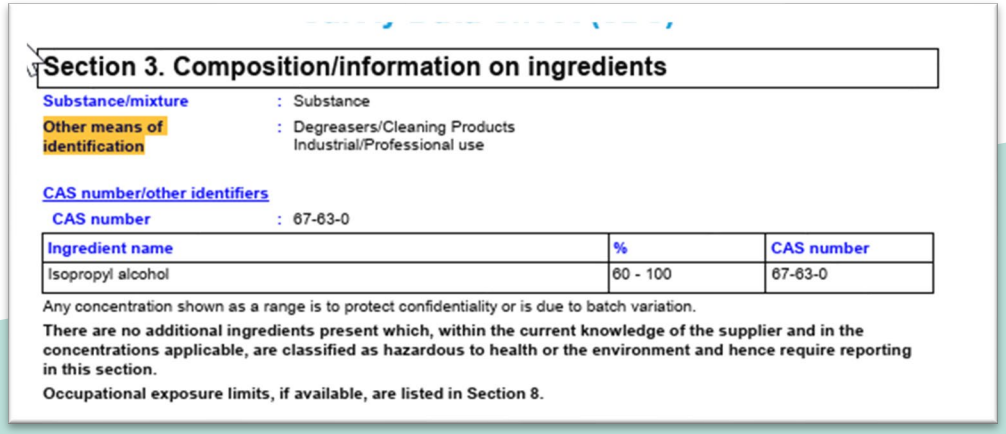
OSHA/HCS status	:	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	:	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A
GHS label elements		
Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	Highly flammable liquid and vapor. Causes serious eye irritation.
Precautionary statements		
Prevention	:	Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Wash hands thoroughly after handling.
Response	:	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage	:	Store in a well-ventilated place. Keep cool.
Disposal	:	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	:	None known.

SDS Example C:

Moderate Compliance Issues

Content & Classification Issues:

Other means of identification are not in the correct section. It should be in Section 1. This also is likely a mixture.



Section 3. Composition/information on ingredients

Substance/mixture : Substance

Other means of identification : Degreasers/Cleaning Products
Industrial/Professional use

CAS number/other identifiers

CAS number : 67-63-0

Ingredient name	%	CAS number
Isopropyl alcohol	60 - 100	67-63-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

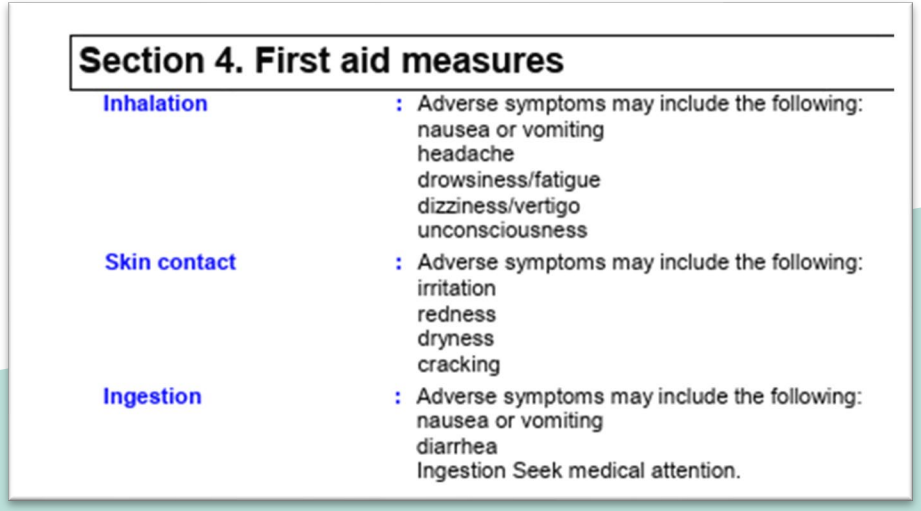
Occupational exposure limits, if available, are listed in Section 8.

SDS Example C:

Moderate Compliance Issues

Confusing Hazard Information:

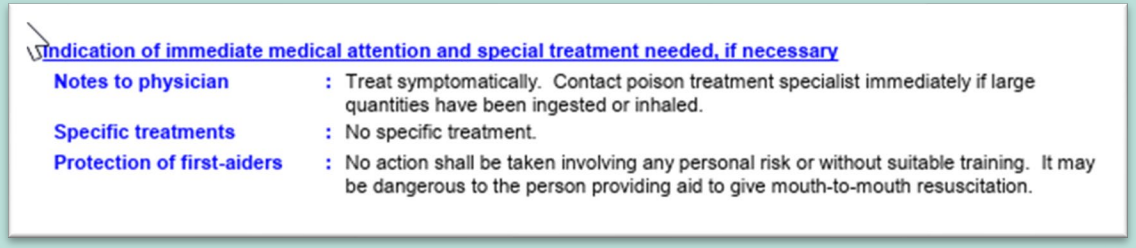
The ingestion statement raises questions about the actual hazards of the product, including whether this is acutely toxic via inhalation.



Section 4. First aid measures

Inhalation	:	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	:	Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	:	Adverse symptoms may include the following: nausea or vomiting diarrhea Ingestion Seek medical attention.

Lacks specific details for immediate medical attention.



Indication of immediate medical attention and special treatment needed, if necessary

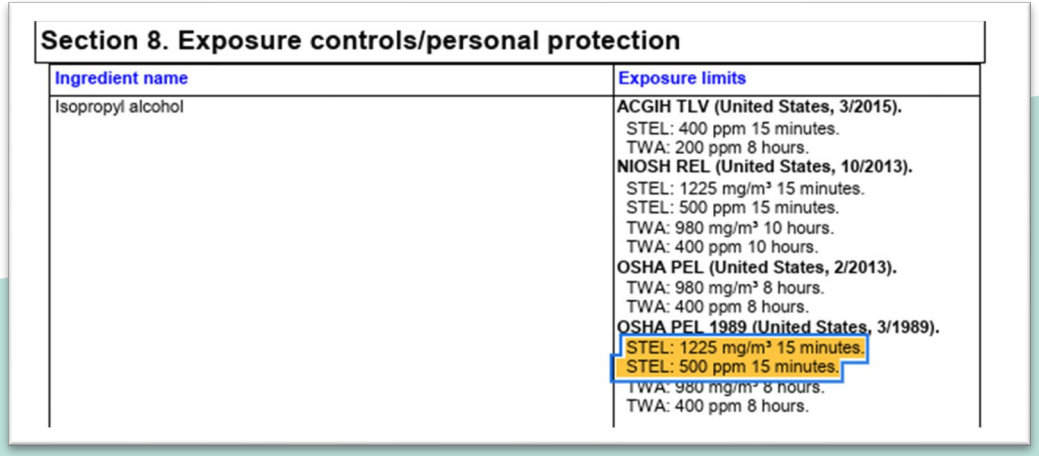
Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	No specific treatment.
Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

SDS Example C:

Moderate Compliance Issues

Outdated Regulatory References:

Contains a 1989 OSHA PEL section that is no longer in effect and is also missing the NIOSH IDLH of 2000 ppm.



Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
Isopropyl alcohol	**ACGIH TLV (United States, 3/2015).** STEL: 400 ppm 15 minutes. TWA: 200 ppm 8 hours. **NIOSH REL (United States, 10/2013).** STEL: 1225 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 980 mg/m³ 10 hours. TWA: 400 ppm 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 980 mg/m³ 8 hours. TWA: 400 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 1225 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 980 mg/m³ 8 hours. TWA: 400 ppm 8 hours.

SDS Example C:

Moderate Compliance Issues

Outdated Regulatory References:

OEL Data for reference:

Screenshot reference: https://www.osha.gov/chemicaldata/475

Exposure Limits

OSHA PEL 8-hour TWA (ST) STEL (C) Ceiling Peak		NIOSH REL Up to 10-hour TWA (ST) STEL (C) Ceiling		ACGIH TLV© 8-hour TWA (ST) STEL (C) Ceiling		CAL/OSHA PEL 8-hour TWA (ST) STEL (C) Ceiling Peak	
PEL-TWA	400 ppm (980 mg/m^3)	**REL-TWA**	400 ppm (980 mg/m^3)	**TLV-TWA**	200 ppm [2001]	**PEL-TWA**	400 ppm (980 mg/m^3)
PEL-STEL		**REL-STEL**	500 ppm (1225 mg/m^3)	**TLV-STEL**	400 ppm [2001]	**PEL-STEL**	500 ppm (1225 mg/m^3)
PEL-C		**REL-C**		**TLV-C**		**PEL-C**	
Skin notation	N	**Skin notation**	N	**Skin notation**	N	**Skin notation**	N
Notes: See 29 CFR 1910.1000 Table Z-1.		**Notes:**		**Notes:** BEI®		**Notes:**	
Health factors: See NIH-NLM PubChem.		**IDLH**	2000 ppm				
Carcinogenic classifications: IARC-3, TLV-A4		**Notes:** 10% of LEL					
AIHA emergency response planning guidelines - ERPG-1/ERPG-2/ERPG-3:							

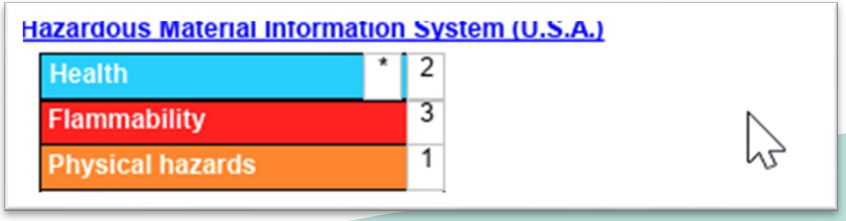
SDS Example C:

Moderate Compliance Issues

Outdated Regulatory References:

Section 15 has minor errors that, while not regulated, stress the importance of maintaining accurate data.

An asterisk suggests a chronic hazard, yet this isn't reflected in the hazard classifications in Section 2.



Best Practices for SDS Compliance

Key Strategies:

- Regularly update SDSs to reflect current regulations.
- Utilize a comprehensive compliance checklist during reviews.
- Consult regulatory experts to interpret and apply complex requirements.
- Document trade secret information clearly and in accordance with guidelines.

Q&A

Engage with Our Experts

Interactive Q&A:

- Submit your questions via the chat feature
- Our panel of regulatory experts will address your queries live

Contact us:

- info@totalsds.com
- 813-859-5100
- TotalSDS.com